

UNITED STATES OF AMERICA,)
)
 Plaintiff,) CASE NO. CR19-00159-RSL
)
 v.) Seattle, Washington
)
) June 16, 2022
 PAIGE A. THOMPSON,) 9:00 a.m.
)
 Defendant.) JURY TRIAL, Vol. 8 of 9
)

APPEARANCES :

For the Plaintiff: ANDREW C. FRIEDMAN
 JESSICA M. MANCA
 TANIA M. CULBERTSON
 United States Attorney's Office
 700 Stewart Street, Suite 5220
 Seattle, WA 98101

For the Defendant: MOHAMMAD ALI HAMOUDI
NANCY TENNEY
Federal Public Defender's Office
1601 5th Avenue, Suite 700
Seattle, WA 98101

BRIAN E. KLEIN
MELISSA A. MEISTER
Waymaker LLP
515 S Flower Street, Suite 3500
Los Angeles, CA 90071

Reported by: Nancy L. Bauer, CRR, RPR
Marci Chatelain, CRR, RPR, RMP, CCR
Official Federal Court Reporter
700 Stewart Street, Suite 17205
Seattle, WA 98101
nancy.bauer@wawd.uscourts.gov

INDEX

GOVERNMENT'S CLOSING ARGUMENT	28
DEFENDANT'S CLOSING ARGUMENT	64
GOVERNMENT'S REBUTTAL ARGUMENT	92

PROCEEDINGS

THE COURT: Mr. Klein, you had something you wanted to add to the exceptions to the Court's instructions given and not given?

MR. KLEIN: Yes, Your Honor.

We had three more formal exceptions. They are from Docket No. 286, which was our initial proposal of jury instructions, and they're Defendant's Requested Instructions 8, 9, and 10. No. 8 deals with trade secrets; No. 9 deals with independent economic value; and No. 10 deals with the secrecy, with the maintaining secrecy.

THE COURT: Okay. Those are noted for the record, and the Court will stay with the instructions as proposed yesterday.

Anything else before we bring the jury in? Mr. Friedman, all set?

MR. FRIEDMAN: Yes, Your Honor.

THE COURT: And, Mr. Hamoudi, all set?

MR. HAMOUDI: We're all set, Your Honor.

THE COURT: Great. Victoria will bring the jury in.

(Brief pause in proceedings.)

THE FOLLOWING PROCEEDINGS WERE HELD
IN THE PRESENCE OF THE JURY:

THE COURT: Thank you, please be seated.

As promised, on your chairs, instead of the notebooks, is

1 the Court's instructions to the jury, and a pen.

2 Why don't you all write your juror numbers on those, and
3 those will stay with you when you are in the jury room. You'll
4 leave them on your chairs when we're done here, and Victoria
5 will bring them back to you.

6 So your copies of the Court's instructions have my
7 signature in black. The original, which the presiding jury will
8 hold on to, my signature is in blue ink, and only write on the
9 originals to fill out the verdict form.

10 You can take notes on the copies, and they will either be
11 destroyed at the end of the case, or given to you as a door
12 prize for your wonderful participation.

13 So the Court's instructions represent the best effort of
14 me, with the assistance of counsel, to provide you with the law
15 you need to decide the case.

16 Where specific legal terms are used, they are defined for
17 you in these instructions. If there is no specific legal
18 definition, use common, everyday meaning to define words. But
19 under no circumstances should you consult any outside sources of
20 information. I used to say, "Don't ask Jeeves," but nobody even
21 knows what that was anymore. But don't do any Google searches
22 or any law searches or anything like that. Everything you need
23 to know about the case is in these Court's instructions to the
24 jury, which I'm going to read to you now.

25 Instruction No. 1: Members of the jury, now that you have

1 heard all the evidence, it is my duty to instruct you on the law
2 that applies to this case. A copy of these jury instructions
3 will be available in the jury room for you to consult.

4 It is your duty to weigh and evaluate all the evidence
5 received in the case, and in that process to decide the facts.
6 It is also your duty to apply the law as I give it to you to the
7 facts as you find them, whether you agree with the law or not.
8 You must decide the case solely on the evidence and the law.
9 You will recall you took an oath promising to do so at the
10 beginning of the case.

11 You should also not been influenced by any person's race,
12 color, religious beliefs, national ancestry, sexual orientation,
13 gender identity, gender, or economic circumstances. Also, do
14 not allow yourself to be influenced by personal likes or
15 dislikes, sympathy, prejudice, fear, public opinion or biases,
16 including unconscious biases.

17 Unconscious biases are stereotypes, attitudes, or
18 preferences that people may consciously reject, but may be
19 expressed without conscious awareness, control, or intention.

20 You must follow all these instructions and not single out
21 some and ignore others. They are all important. Please do not
22 read into these instructions, or into anything I may have said
23 or done, any suggestion as to what verdict you should return.
24 That is a matter entirely up to you.

25 The indictment is not evidence. The defendant has pleaded

1 not guilty to the charges. The defendant is presumed to be
2 innocent unless and until the government proves the defendant
3 guilty beyond a reasonable doubt.

4 In addition, the defendant does not have to testify or
5 present any evidence. The defendant does not have to prove
6 innocence. The government has the burden of proving every
7 element of the charges beyond a reasonable doubt.

8 A defendant in a criminal case has a constitutional right
9 not to testify. In arriving at your verdict, the law prohibits
10 you from considering, in any manner, that defendant did not
11 testify.

12 Proof beyond a reasonable doubt is proof that leaves you
13 firmly convinced the defendant is guilty. It is not required
14 that the government prove guilt beyond all possible doubt. A
15 reasonable doubt is a doubt based upon reason and common sense,
16 and is not based purely on speculation. It may arise from a
17 careful and impartial consideration of all the evidence, or from
18 lack of evidence.

19 If, after a careful and impartial consideration of all the
20 evidence, you are not convinced beyond a reasonable doubt that
21 the defendant is guilty, it is your duty to find the defendant
22 not guilty. On the other hand, if, after a careful and
23 impartial consideration of all the evidence, you are convinced
24 beyond a reasonable doubt that the defendant is guilty, it is
25 your duty to find the defendant guilty.

1 The parties have agreed to certain facts that have been
2 stated to you. Those facts are now conclusively established.

3 The evidence you are to consider in deciding what the facts
4 are consists of, first, the sworn testimony of any witness,
5 second, the exhibits received in evidence, and third, any facts
6 to which the parties have agreed.

7 No. 7: In reaching your verdict, you may consider only the
8 testimony and exhibits received in evidence. The following
9 things are not evidence and you may not consider them in
10 deciding what the facts are:

11 Questions, statements, objections, and arguments by the
12 lawyers are not evidence. The lawyers are not witnesses.
13 Although you must consider a lawyer's questions to understand
14 the answers of a witness, the lawyers' questions are not
15 evidence.

16 Similarly, what the lawyers have said in their opening
17 statements and will say in their closing arguments and have said
18 at other times is intended to help you interpret the evidence,
19 but it is not evidence. If the facts as you remember them
20 differ from the way the lawyers state them, your memory of them
21 controls.

22 Any testimony that I have excluded, stricken, or instructed
23 you to disregard is not evidence. Anything you may have seen or
24 heard when court was not in session is not evidence. You are to
25 decide the case solely on the evidence received at trial.

1 Evidence may be direct or circumstantial. Direct evidence
2 is direct proof of a fact, such as testimony by a witness about
3 what that witness personally saw or heard or did.

4 Circumstantial evidence is indirect evidence. That is, it is
5 proof of one or more facts from which you can find another fact.
6 You are to consider both direct and circumstantial evidence.

7 Either can be used to prove any fact. The law makes no
8 distinction between the weight to be given to either direct or
9 circumstantial evidence. It is for you to decide how much
10 weight to give to any evidence.

11 No. 9: In deciding the facts in this case, you may have to
12 decide which testimony to believe and which testimony not to
13 believe. You may believe everything a witness says, part of it,
14 or none of it.

15 In considering the testimony of any witness, you may take
16 into account the following:

17 First, the opportunity and ability of the witness to see or
18 hear or know the things testified to; second, the witness's
19 memory; third, the witness's manner while testifying; fourth,
20 the witness's interest in the outcome of the case, if any;
21 fifth, the witness's bias or prejudice, if any; six, whether
22 other evidence contradicted the witness's testimony; seven, the
23 reasonableness of the witness's testimony in light of all the
24 evidence; and eight, any other factors that bear on
25 believability.

1 Sometimes a witness may say something that is not
2 consistent with something else he or she said. Sometimes
3 different witnesses will give different versions of what
4 happened. People often forget things and make mistakes in what
5 they remember. Also, two people may see the same event but
6 remember it differently.

7 You may consider these differences, but do not decide that
8 testimony is untrue just because it differs from other
9 testimony.

10 However, if you decide that a witness has deliberately
11 testified untruthfully about something important, you may choose
12 not to believe anything that witness said; on the other hand, if
13 you think the witness testified untruthfully about some things
14 but told the truth about others, you may accept the part you
15 think is true, and ignore the rest.

16 The weight of the evidence as to a fact does not
17 necessarily depend on the number of witnesses who testify. What
18 is important is how believable the witnesses were and how much
19 weight you think their testimony deserves.

20 These factors apply equally to the testimony of law
21 enforcement witnesses. Their testimony is to be given no extra
22 consideration or weight. You are to evaluate and treat their
23 testimony like you would any other witness.

24 You are here only to determine whether the defendant is
25 guilty or not guilty of the charges in the indictment. The

1 defendant is not on trial for any conduct or offense not charged
2 in the indictment.

3 No. 11: A separate crime is charged against the defendant
4 in each count. You must decide each count separately. Your
5 verdict on one count should not control your verdict on any
6 other count.

7 The indictment charges that offenses alleged in Counts 1,
8 2, 4, 5, 6, 7, 9, and 10, were committed on or about certain
9 dates. The indictment charges that the offense alleged in
10 Count 8 was committed on or before and on or after certain
11 dates.

12 Although it is necessary for the government to prove beyond
13 a reasonable doubt that the offenses were committed on dates
14 reasonably near the dates alleged in Counts 1, 2, and 4 through
15 10 of the indictment, it is not necessary for the government to
16 prove that the offenses were committed precisely on the dates
17 charged.

18 And, remember, we dismissed, on the motion of the
19 government, Count 3, which is why we go "1, 2, 4." There is no
20 Count 3 in front of you.

21 No. 13: You have heard testimony that the defendant made
22 statements. It is for you to decide whether the defendant made
23 the statements, and, if so, how much weight to give to them.

24 In making those decisions, you should consider all the
25 evidence about the statements, including the circumstances under

1 which the defendant may have made them.

2 You have heard evidence that the defendant committed other
3 acts not charged here. You may consider this evidence only for
4 its bearing, if any, on the question of the defendant's intent,
5 motive, opportunity, preparation, plan, knowledge, identity,
6 absence of mistake, absence of accident, and for no other
7 purpose.

8 No. 15: You have heard testimony from persons who
9 testified to opinions and the reasons for their opinions. This
10 opinion testimony is allowed because of the education or
11 experience of these witnesses.

12 Such opinion testimony should be judged like any other
13 testimony. You may accept it or reject it, and give it as much
14 weight as you think it deserves, considering the witness's
15 education and experience, the reasons given for the opinion, and
16 all the other evidence in the case.

17 During the trial, charts and summaries were shown to you to
18 help explain the evidence in the case. Certain charts and
19 summaries have been admitted into evidence. Charts and
20 summaries are only as good as the underlying supporting
21 material. You should, therefore, give them only such weight as
22 you think the underlying material deserves.

23 Other charts and summaries were not admitted into evidence
24 and will not go into the jury room with you. These were for
25 illustrative purposes only. They are not themselves evidence or

1 proof of any facts. If they do not correctly reflect the facts
2 or figures shown by the evidence in the case, you should
3 disregard these charts and summaries, and determine the facts
4 from the underlying evidence.

5 No. 17: The defendant is charged in Count 1 of the
6 indictment with wire fraud, in violation of Section 1343 of
7 Title 18 of the United States Code. For the defendant to be
8 found guilty of that charge, the government must prove each of
9 the following elements beyond a reasonable doubt:

10 First, beginning on or before March 2019, and continuing
11 until on or about July 17 of 2019, the defendant knowingly
12 devised and intended to devise a scheme or plan to defraud or a
13 scheme or plan for obtaining money or property from the one who
14 is deceived by means of false or fraudulent pretenses,
15 representations, or promise;

16 Second, the statements made as part of the scheme were
17 material; that is, they had a natural tendency to influence or
18 were capable of influencing a person to part with money or
19 property;

20 Third, the defendant acted with intent to defraud;

21 And fourth, on or about March 22, 2019, the defendant used
22 or caused to be used an interstate or foreign wire communication
23 to carry out an essential part of the scheme.

24 An act is done knowingly if the defendant is aware of the
25 act and does not act through ignorance, mistake, or accident.

1 The government is not required to prove that the defendant knew
2 that her acts or omissions were unlawful. You may consider
3 evidence of the defendant's words, acts, or omissions, along
4 with all the other evidence, in deciding whether the defendant
5 acted knowingly.

6 In determining whether a scheme to defraud exists, you may
7 consider not only the defendant's words and statements, but also
8 the circumstances in which they are used as a whole.

9 An intent to defraud is an intent to deceive and cheat;
10 that is, an intent to deprive a victim of money or property by
11 deception.

12 A wiring is caused when one knows that a wire will be used
13 in the ordinary course of business, or when one can reasonably
14 foresee such use. It need not be reasonably foreseeable to the
15 defendant that the wire communication would be interstate or
16 foreign in nature; rather, it must have been reasonably
17 foreseeable to the defendant that some wire communication would
18 occur in furtherance of the scheme, and an interstate or foreign
19 wire communication must have actually occurred in furtherance of
20 the scheme.

21 The defendant is charged in Count 2 of the indictment with
22 unlawfully obtaining information of Capital One, in violation of
23 Section 1030(a)(2) of Title 18 of the United States Code. For
24 the defendant to be found guilty of that charge, the government
25 must prove each of the following elements beyond a reasonable

1 doubt:

2 First, between on or about March 12, 2019, and on or about
3 July 17 of 2019, the defendant intentionally accessed, without
4 authorization, a computer;

5 Second, by accessing without authorization a computer, the
6 defendant obtained information contained in a financial record
7 of a card issuer;

8 And third, the value of the information obtained exceeded
9 \$5,000.

10 A person accesses a computer without authorization when,
11 one, the computer is protected by a generally applicable rule
12 regarding access permissions, such as a username and password
13 requirement, credential requirement, or other authentication
14 system that prevents the general public from accessing the
15 computer; and two, the person circumvents that rule regarding
16 access permissions to gain access to the computer.

17 The term "card issuer" means any person who issues a credit
18 card, or the agent of such person with respect to such card.

19 No. 19: The defendant is charged in Count 4 of the
20 indictment with unlawfully obtaining information from Apperian's
21 protected computer, in violation of Section 1030(a)(2) of Title
22 18 of the United States Code.

23 For the defendant to be found guilty of that charge, the
24 government must prove each of the following elements beyond a
25 reasonable doubt:

1 First, on or about March 7, 2019, the defendant
2 intentionally accessed, without authorization, Apperian's
3 computer; and second, by accessing without authorization
4 Apperian's computer, the defendant obtained information from a
5 computer that was used in or affecting interstate or foreign
6 commerce or communication; and third, the value of the
7 information obtained exceeded \$5,000.

8 A person accesses a computer, quote, without authorization,
9 when the computer is protected by a generally applicable rule
10 regarding access permissions, such as a username and password
11 requirement, credential requirement, or other authentication
12 system that prevents the general public from accessing the
13 computer, and the person circumvents that rule regarding access
14 permissions to gain access to the computer.

15 The defendant is charged in Count 5 of the indictment with
16 unlawfully obtaining information from Survox's protected
17 computer, in violation of Section 1030(a)(2) of Title 18 of the
18 United States Code.

19 For the defendant to be found guilty of that charge, the
20 government must prove each of the following elements beyond a
21 reasonable doubt:

22 First, on or about March 12, 2019, the defendant
23 intentionally accessed, without authorization, Survox's
24 computer; and second, by accessing without authorization
25 Survox's computer, the defendant obtained information from a

1 computer that was used in or affecting interstate or foreign
2 commerce or communication; and third, the value of the
3 information obtained exceeded \$5,000.

4 A person accesses a computer without authorization when a
5 computer is protected by a generally applicable rule regarding
6 access permissions, such as a username and password requirement,
7 credential requirement, or other authentication system that
8 prevents the general public from accessing the computer, and the
9 person circumvents that rule regarding access permissions to
10 gain access to the computer.

11 No. 21: The defendant is charged in Count 6 of the
12 indictment with unlawfully obtaining information from Bitglass's
13 protected computer, in violation of 1030(a)(2) of Title 18 of
14 the United States Code.

15 For the defendant to be found guilty of that charge, the
16 government must prove each of the following elements beyond a
17 reasonable doubt:

18 First, on or about March 5, 2019, the defendant
19 intentionally accessed, without authorization, Bitglass's
20 computer; and second, by accessing without authorization
21 Bitglass's computer, the defendant obtained information from a
22 computer that was used in or affecting interstate or foreign
23 commerce or communications.

24 A person accesses a computer without authorization when the
25 computer is protected by a generally applicable rule regarding

1 access permissions, such as a username and password requirement,
2 credential requirement, or other authentication system that
3 prevents the general public from accessing the computer, and the
4 person circumvents that rule regarding access permissions to
5 gain access to the computer.

6 The defendant is charged in Count 7 of the indictment with
7 unlawfully obtaining information from 42Lines' protected
8 computer, in violation of 1030(a)(2) of Title 18 of the United
9 States Code.

10 For the defendant to be found guilty of that charge, the
11 government must prove each of the following elements beyond a
12 reasonable doubt:

13 First, on or about March 28, 2019, the defendant
14 intentionally accessed, without authorization, 42Lines'
15 computer; and second, by accessing, without authorization,
16 42Lines' computer, the defendant obtained information from a
17 computer that was used in or affecting interstate or foreign
18 commerce or communication.

19 A person accesses a computer without authorization when the
20 computer is protected by a generally applicable rule regarding
21 access permissions, such as a username and password requirement,
22 credential requirement, or other authentication system that
23 prevents the general public from accessing the computer, and the
24 person circumvents that rule regarding access permission to gain
25 access to the computer.

1 No. 23: The defendant is charged in Count 8 of the
2 indictment with transmitting a program information code or
3 command to a computer intending to cause damage, in violation of
4 Section 1030(a)(5) of Title 18 of the United States Code.

5 For the defendant to be found guilty of that charge, the
6 government must prove each of the following elements beyond a
7 reasonable doubt:

8 First, beginning on or about March 10, 2019, and continuing
9 until on or after August 5, 2019, the defendant knowingly caused
10 the transmission of a program, information code, or command to a
11 computer;

12 Second, as a result of the transmission, the defendant
13 intentionally impaired, without authorization, the integrity or
14 availability of data, a program, a system, or information;

15 Third, the computer was used in or affected interstate or
16 foreign commerce or communication;

17 And fourth, the offense caused loss to one or more persons
18 during a one-year period, including loss from a related course
19 of conduct, aggregating at least \$5,000 in value.

20 An act is done knowingly if the defendant is aware of the
21 act and does not act through ignorance, mistake, or accident.
22 The government is not required to prove that the defendant knew
23 her acts or omissions were unlawful. You may consider evidence
24 of the defendant's acts or omissions, along with all the other
25 evidence, in deciding whether the defendant acted knowingly.

1 The term "person" means any individual, firm, corporation,
2 educational institution, financial institution, governmental
3 entity, or legal or other entity.

4 For purposes of Counts 4, 5, 6, 7, and 8, a computer is
5 used in or affecting interstate or foreign commerce or
6 communication if it is connected to the Internet.

7 No. 25: The defendant is charged in Count 9 of the
8 indictment of unlawful possession and attempted unlawful
9 possession of unauthorized access devices, in violation of
10 Section 1029(a)(3) of Title 18 of the United States Code. For
11 the defendant to be found guilty of that charge, the government
12 must prove each of the following elements beyond a reasonable
13 doubt;

14 First, beginning on or about March 12, 2019, and continuing
15 until on or about July 17, 2019, the defendant knowingly
16 possessed or attempted to possess at least 15 unauthorized
17 access devices at the same time;

18 Second, the defendant knew that the devices were
19 unauthorized;

20 Third, that the defendant acted with intent to defraud;

21 And fourth, the defendant's conduct, in some way, affected
22 commerce between one state and another state or states, or
23 between a state of the United States and a foreign country.

24 An act is done knowingly if the defendant is aware of the
25 act, and does not act through ignorance, mistakes, or accident.

1 The government is not required to prove that the defendant knew
2 that her acts or omissions were unlawful. You may consider
3 evidence of the defendant's words, acts, or omissions, along
4 with all the other evidence, in deciding whether the defendant
5 acted knowingly.

6 A person has possession of something if the person knows of
7 its presence and has physical control of it, or knows of its
8 presence and has the power and intention to control it.

9 A defendant attempts to commit a crime when she intends to
10 commit the crime, and she does something that is a substantial
11 step toward committing the crime, and it strongly corroborates
12 her intent to commit the crime.

13 Mere preparation is not a substantial step toward
14 committing the crime. To constitute a substantial step, a
15 defendant's act or actions must unequivocally demonstrate that
16 the crime will take place unless interrupted by independent
17 circumstances.

18 Jurors do not need to agree unanimously as to which
19 particular act or actions constituted a substantial step toward
20 the commission of a crime.

21 An access device means any card, plate, code, account
22 number, electronic serial number, mobile identification number,
23 personal identification number, or other telecommunications
24 service, equipment, or instrument identifier, or other means of
25 account access that can be used alone or in conjunction with

1 another access device to obtain money, goods, services, or any
2 other thing of value, or that can be used to initiate a transfer
3 of funds, other than a transfer originated solely by paper
4 instrument.

5 An "unauthorized access device" means any access device
6 that is lost, stolen, expired, revoked, cancelled, or obtained
7 with the intent to defraud. An intent to defraud is an intent
8 to deceive and cheat; that is, an intent to deprive a victim of
9 money or property by deception.

10 The defendant is charged in Count 10 of the indictment with
11 aggravated identity theft, in violation of Section 1028(A)(a)(1)
12 of Title 18 of the United States Code. For the defendant to be
13 found guilty of that charge, the government must prove each of
14 the following elements beyond a reasonable doubt:

15 First, beginning on or about March 12, 2019, and continuing
16 until on or about July 17, 2019, the defendant knowingly
17 possessed, without legal authority, a means of identification of
18 another person;

19 Second, the defendant knew that the means of identification
20 belonged to a real person;

21 And third, the defendant did so during and in relation to
22 access device fraud, as charged in Count 9.

23 An act is done knowingly if the defendant is aware of an
24 act and does not act through ignorance, mistake, or accident.
25 The government is not required to prove that the defendant knew

1 that her acts or omissions were unlawful. You may consider
2 evidence of the defendant's words, acts, or omissions, along
3 with all the other evidence, in deciding whether the defendant
4 acted knowingly.

5 The term "means of identification" means any name or number
6 that may be used alone or in conjunction with any other
7 information to identify a specific individual. The term
8 includes any name, Social Security number, or date of birth.

9 No. 27: When you begin your deliberations, elect one
10 member of the jury as your presiding juror who will preside over
11 the deliberations and speak for you here in court.

12 You will then discuss the case with your fellow jurors to
13 reach agreement, if you can do so. Your verdict, whether guilty
14 or not guilty, must be unanimous.

15 Each of you must decide the case for yourself, but you
16 should do so only after you have considered all the evidence,
17 discussed it fully with the other jurors, and listened to the
18 views of your fellow jurors.

19 Do not be afraid to change your opinion if the discussion
20 persuades you that you should, but do not come to a decision
21 simply because other jurors think it is right.

22 It is important that you attempt to reach a unanimous
23 verdict, but, of course, only if each of you can do so after
24 having made your own conscientious decision.

25 Do not change an honest belief about the weight and effect

1 of the evidence simply to reach a verdict.

2 Perform these duties fairly and impartially. You should
3 also not be influenced by any person's race, color, religious
4 beliefs, national ancestry, sexual orientation, gender identity,
5 gender, or economic circumstances. Also, do not allow yourself
6 to be influenced by personal likes or dislikes, sympathy,
7 prejudice, fear, public opinion, or biases, including
8 unconscious biases. Unconscious biases are stereotypes,
9 attitudes, or preferences that people may consciously reject,
10 but may be expressed without conscious awareness, control, or
11 intention.

12 It is your duty as jurors to consult with one another and
13 to deliberate with one another with a view towards reaching an
14 agreement, if you can do so. During your deliberations, you
15 should not hesitate to reexamine your own views and change your
16 opinion if you become persuaded that it is wrong.

17 Because you must base your verdict only on the evidence
18 received in the case and on these instructions, I remind you
19 that you must not be exposed to any other information about the
20 case or the issues it involves.

21 Except for discussing the case with your fellow jurors
22 during your deliberations, do not communicate with anyone in any
23 way, and do not let anyone else communicate with you in any way
24 about the merits of the case or anything to do with it. This
25 restriction includes discussing the case in person, in writing,

1 by phone, tablet, computer, or any other means, by email, text
2 message, or any Internet chat room, blog, website, or any other
3 form of social media.

4 This restriction applies to communicating with your family
5 members, your employer, the media, the press, and the people
6 involved in the trial. If you are asked or approached in any
7 way about your jury service or anything about this case, you
8 must respond you have been ordered not to discuss the matter,
9 and report this contact to the Court.

10 Do not read, watch, or listen to any news or media accounts
11 or commentary about the case or anything to do with it. Do not
12 do any research such as consulting dictionaries, searching the
13 Internet, or using other reference materials, and do not make
14 any investigation or in any other way try to learn about the
15 case on your own.

16 The law requires these restrictions to ensure the parties
17 have a fair trial based upon the same evidence that each party
18 has had an opportunity to address. A juror who violates these
19 restrictions jeopardizes the fairness of these proceedings, and
20 a mistrial could result that would require the entire trial
21 process to start over.

22 If any juror is exposed to any outside information, please
23 notify the Court immediately.

24 No. 29: Some of you have taken notes during the trial.
25 Whether or not you took notes, you should rely on your own

1 memory of what was said. Notes are only to assist your memory,
2 and you should not be overly influenced by your notes or those
3 of your fellow jurors.

4 Those exhibits capable of being displayed electronically
5 will be provided to you in that form, and you will be able to
6 view them in the jury room. A computer, projector, and
7 accessory equipment will be available for you in the jury room.

8 A court technician -- that is Victoria -- will show you how
9 to operate the computer and other equipment, how to locate and
10 view the exhibits on the computer. You will also be provided
11 with a paper list of all the exhibits received in evidence. You
12 may request a paper copy of an exhibit received in evidence by
13 sending a note through the clerk, Victoria. If you need
14 additional equipment or supplies, you can make such a request by
15 sending a note.

16 In the event of any technical problem, or if you have
17 questions about how to operate the computer or other equipment,
18 send Victoria a note signed by the foreperson or by one or more
19 members of the jury. Be as brief as possible in describing the
20 problem, and do not refer to or discuss any exhibit you are
21 attempting to view.

22 If a technical problem or question requires hands-on
23 maintenance or instructions, a court technician may enter the
24 jury room, with the clerk present, for the sole purpose of
25 assuring that the only matter that is discussed is the technical

1 problem.

2 When the court technician or any non-juror is in the jury
3 room, the jury shall not deliberate. No juror may say anything
4 to the court technician or any non-juror, other than to describe
5 the technical problem or seek information about operation of the
6 equipment. Do not discuss any exhibit or any aspect of the
7 case.

8 The sole purpose of providing this computer in the jury
9 room is to enable jurors to view the exhibits received in
10 evidence in this case. You may not use the computer for any
11 other purposes. At my direction, the technicians have taken
12 steps to make sure the computer does not permit access to the
13 Internet or to any outside website, database, directory, game,
14 or other material.

15 Do not attempt to alter the computer to obtain access to
16 such materials. If you discover that the computer does provide
17 or allow access to such materials, please inform us immediately,
18 and refrain from using such materials. Do not remove the
19 computer or any electronic data from the jury room, and do not
20 copy any such data.

21 No. 31: The punishment provided by law for the crime here
22 is for the Court to decide. You may not consider punishment in
23 deciding whether the government has proved its case against the
24 defendant beyond a reasonable doubt.

25 A verdict form has been prepared for you. All of the

1 verdict forms you have have "copy" stamped on them, just like
2 the instructions do; the original does not. After you have
3 reached unanimous agreement on the verdict, your presiding juror
4 should complete the verdict form according to your
5 deliberations, sign and date it, and advise the clerk that you
6 are ready to return to court.

7 Final one, No. 33: If it becomes necessary during your
8 deliberations to communicate with me, you may send a note,
9 through the clerk, signed by any one or more of you. No member
10 of the jury should ever attempt to communicate with me, except
11 by a signed writing, and I will respond to the jury concerning
12 the case only in writing or here in open court.

13 If you send out a question, I will consult with the lawyers
14 before answering it, which may take some time. You may continue
15 your deliberations while waiting for the answer to any question.
16 Remember, you're not to tell anyone, including me, how the jury
17 stands, numerically or otherwise, on any question submitted to
18 you, including the question of the guilt of the defendant, until
19 after you have reached a unanimous verdict or have been
20 discharged.

21 So would you now please give your attention to Assistant
22 United States Attorney Andrew Friedman, who will make the
23 closing argument on behalf of the government.

24 Counsel?
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

GOVERNMENT'S CLOSING ARGUMENT

MR. FRIEDMAN: Good morning, ladies and gentlemen of the jury.

In the spring of 2019, Paige Thompson embarked on a massive hacking campaign against clients of AWS. She scammed tens of millions of addresses on the Internet, looking for firewalls that had been misconfigured. When she found vulnerabilities, she hacked into them, she stole credentials, and she used those credentials to steal as much data as she could, and to engage in cryptojacking; that is, mining cryptocurrency using other people's resources.

She knew what she was doing was illegal. She said that time and again. But she didn't care. She wanted the money that she got from cryptojacking, she wanted the data, and she wanted to brag and show other people that she was smarter than them. The one thing she didn't want was to help any of the victims whose computers she hacked into.

Ladies and gentlemen, evidence comes in in a trial in kind of an arbitrary manner. You hear from one witness after another. They each tell you about their part of the story, what they saw. And so what I want to do this morning is I want to spend a few minutes pulling some of that evidence together to show the overall picture, and then I want to talk about the crimes with which Ms. Thompson is charged, and how the evidence shows that she committed each of those crimes, and, finally, to

1 the extent I haven't already done so, I want to talk about some
2 of the arguments that the defense has made during the course of
3 this trial.

4 So let's start with the evidence.

5 Ladies and gentlemen of the jury, by now you're familiar
6 with how Paige Thompson committed her hack. You know what's
7 called her Attack Vector. She scanned tens of millions of AWS
8 clients' computers looking for firewalls that had been
9 configured in a way that allowed them to proxy or relay her
10 messages to something called the Instance Metadata Service.

11 The Instance Metadata Service should never communicate with
12 outside computers. It should not be able to communicate with
13 them. But Ms. Thompson, when she found ones where the
14 configuration allowed that, she asked a series of questions,
15 looking for a series of pieces information: The ID of the
16 computer, the AMID that she was talking to; roles that were
17 available that she might be able to assume; and, ultimately, the
18 credentials for those roles, the secret access key, the access
19 key that she would be able to use if she had those roles.

20 Now, Ms. Thompson shouldn't have been able to communicate
21 with the Instance Metadata Service, and it shouldn't have
22 answered her questions, but it did because of how she had
23 approached it, how she tricked it.

24 Remember Steve Schuster? He was a witness from AWS, the
25 first witness to testify in the trial. That's the word he used

1 to describe what Ms. Thompson did. She tricked the hypervisor.
2 She fooled the Instance Metadata Service into answering her
3 question.

4 The Instance Metadata Service provided the information
5 because it thought it was talking to the firewall. It thought
6 the firewall was asking those questions, and so it provided the
7 information, it provided role, it provided the access key, it
8 provided the secret access key. And when the Instance Metadata
9 Service provided that information to the firewall, the firewall
10 relayed it on to Ms. Thompson, and once she had that
11 information, she could go to the races.

12 With those credentials, she was able to access AWS's
13 command line interface, use those credentials to enter victims'
14 spaces, and do whatever those credentials had permission to do.
15 If they had permission to read and copy data, she was able to
16 read and copy that data. If they had permission to launch new
17 virtual servers and instances, she could launch new instances,
18 and she could place software on those instances to conduct
19 cryptojacking, basically to mine cryptocurrency using the
20 companies' resources for her own benefit.

21 Now, these diagrams make what Ms. Thompson did look
22 relatively simple. But you've seen the code, and you know it's
23 really not that simple. Ms. Thompson had found a vulnerability
24 that no one else had found before.

25 And you remember Waymon Ho, the FBI computer scientist? As

1 he explained it to you, he looked at the code. He could see
2 Ms. Thompson figuring out how to do this. He could see her code
3 evolving over time. He could see her running into roadblocks,
4 getting errors, and figuring a way around those. So this was a
5 complicated process for her to figure out.

6 And, remember, Steve Schuster has been at Amazon doing
7 cyber security for nearly ten years, and he told you that no one
8 had ever succeeded in hacking into AWS from the outside, in this
9 way, and stealing clients' information. This was a novel -- it
10 was a complicated exploit. It was a vulnerability that Ms.
11 Thompson found that others hadn't seen, and she figured out how
12 to take advantage of.

13 And AWS, when they learned about the breach, they were
14 worried about this for their other clients, and they actually
15 performed a scan of the entire universe of their clients to see
16 who else might have configured computers in this way, because it
17 might well be a mistake, and informed all of those clients so
18 they could protect themselves so they wouldn't be vulnerable to
19 the same kind of hack.

20 Between March of 2019 and August of 2019, Ms. Thompson
21 spent a lot of time working on this. She must have spent
22 hundreds of hours on this exploit. And you have seen, through
23 Mr. Ho's testimony, pieces of her computer that were devoted to
24 that. File after file, folder after folder of scripts, of
25 information relating to the results of running those scripts, of

1 information she got from AWS.

2 This is the beginning, the high-level folder. It's called
3 "aws_hacking_shit." That's where Ms. Thompson put much of the
4 information that she used in this hacking campaign, scripts that
5 she used, responses, tools that she used in her campaign.

6 "aws_scanner," that's a folder that's filled with materials
7 that she used as part of her scanning campaign looking for the
8 vulnerability.

9 ".aws," this is information that, once she had scanned,
10 once she had found the vulnerability and got information, this
11 is the information she used in order to communicate with AWS's
12 command line interface, in order to enter the AWS environment,
13 in order to proceed towards taking data, towards mining.

14 "aws_dumps," this is a folder with file -- with subfolders,
15 one after another, containing information that Ms. Thompson
16 stole from clients of AWS and that she stored on her computer.
17 And you see the first few here, just the A's.

18 And "miner," this is a folder that had mining scripts, all
19 of the tools that Ms. Thompson used in order to plant
20 cryptocurrency mining software on victims' computers in order to
21 cryptojack.

22 And Ms. Thompson, she was acting at almost industrial
23 scale. This is a message that she sent. She's talking about
24 how broad her scanner was, how much it scanned. She scanned 36
25 million addresses trying to find the relatively few who made a

1 mistake in how they configured their defenses. Her scanner took
2 20 hours to look at that universe.

3 And this is a bigger shot of the aws_dumps folder. Each
4 one of these folders represents information stolen from a
5 different client. More than 30 different victims, some of whom
6 lost massive amounts of information. You've heard about Capital
7 One, 100 million people's records, you've heard about Apperian,
8 the company's entire source code and client database, all stored
9 on Ms. Thompson's computer.

10 And Ms. Thompson was acting on the same scale in mining.
11 This is a message exchange that resulted from her request to
12 open new instances for cryptojacking. And the message here,
13 basically, tells Ms. Thompson, "You've exceeded the quota of new
14 instances you can open on this account. You've gone over your
15 quota," and when I say "your quota," I really mean the victim
16 client's quota, the account that she hacked into, because you as
17 a client, you're only allowed 20 more instances, but you've
18 asked for 100. She's trying to open 100 new computers,
19 high-powered computers, to cryptojack.

20 And this is an excerpt from another file you saw. This is
21 the "AWS commands" files. It has commands that Ms. Thompson
22 saved because she thought they were of note, that they would be
23 useful letter.

24 And the final command, you can see how long this is. This
25 folder goes 64 pages when you look at it. The final line is

1 command 10,007. This was a full-time enterprise by Ms. Thompson
2 during those months.

3 Now, based on Ms. Thompson's conduct, she's charged with
4 nine crimes, and I want to start by talking about the crimes
5 that charge unauthorized access to a computer, and those are
6 Counts 2 and 4 through 7.

7 Each one of those counts is based on a different client, a
8 different computer that she accessed. And each one of those
9 counts requires the government to find several things. They all
10 begin by asking the government to find that Ms. Thompson
11 intentionally accessed a computer without authorization. So
12 that's a common element between all of those. Because that's
13 the longest discussion, I'm going to come back to that in a
14 minute.

15 Each of them also requires the government to prove other
16 things. So for Count 2, which relates to Capital One, the
17 government has to prove that Ms. Thompson obtained information
18 in a financial record of a card issuer. And you know that's
19 true. Capital One is a credit-card-issuing business.

20 And Mike Fisk told you that the data that she obtained, the
21 data in the folders that she took, was transaction data. So
22 there is no question about that.

23 And third, the government has to prove that the value of
24 the information exceeded \$5,000. And, remember, Ken Henderson,
25 the secret service agent, he came in and told you that the data

1 set that she took would probably be worth \$500,000 or more.
2 There's no question that it's worth more than \$5,000 on the
3 black market.

4 Counts 4 and 5, the two extra things the government has to
5 prove in those counts -- and those counts relate to Apperian and
6 Survox -- the government has to prove that the computer was used
7 in or affecting interstate commerce. And you have, in your
8 instructions, an instruction that says if the computer is
9 connected to the Internet, it's used in or affecting interstate
10 commerce, and so there is no question about that, these are
11 computers of businesses connected to the Internet -- that's how
12 Ms. Thompson got to them -- a business that acted in interstate
13 commerce.

14 Third, for these two counts, the government has to prove
15 that value of the information was more than \$5,000, and, again,
16 the evidence you heard shows there's no question for these two
17 topics.

18 Remember Matt Pelaggi, who worked for Apperian? He told
19 you that the information Ms. Thompson took was the company's
20 entire source code for its product and its entire customer
21 database; basically, the entire company. They had paid much
22 more than that for it. It would cost far more than \$5,000 to
23 re-create. It not a close question.

24 In the case of Survox, remember John Roundy testified, and
25 he said Ms. Thompson had taken more than a million customer

1 records, and he was confident that those were worth more than
2 \$100,000. So, again, there is no question that the value was
3 over \$5,000.

4 For the last two of these counts, Counts 6 and 7, which
5 relate to Bitglass and 42Lines, the government has to prove the
6 computer is connected to the Internet and, therefore, used in
7 interstate commerce. Again, no question about that. That's the
8 only additional element for those two counts.

9 So that brings us to, basically, the central issue here,
10 which is, did Ms. Thompson access these computers without
11 authorization? And the answer to that is clearly "yes."

12 Each of these counts includes a definition of "without
13 authorization," and it's the same definition for all of them, so
14 I'm just showing one. But it provides, "A person accesses a
15 computer without authorization when the computer is protected by
16 a generally applicable rule regarding access permissions, such
17 as a username and password requirement, credential requirement,
18 or other authentication system that prevents the general public
19 from accessing the computer, and, two, the person circumvents
20 that rule regarding access permissions to gain access to the
21 computer."

22 The evidence in this case has shown that that's true.

23 The computers that Ms. Thompson accessed in order to steal
24 data, in order to run new instances, were the internal
25 environments of all these -- the internal AWS environments of

1 all these instances we've been talking about. She accessed that
2 through the AWS command line interface. She did that using
3 credentials, the credentials that she had stolen through the
4 misconfigured firewall.

5 Now, the command line interface requires those credentials.
6 Neither you nor I, we can't just log into one these companies'
7 environments, because we don't have those credentials.

8 Ms. Thompson, a company who didn't know her, she didn't
9 have those credentials and the ability to log-in there, and so
10 those buckets, that environment is protected by credential
11 requirement. That's the first part of this definition.

12 The second part is that the person has circumvented that
13 rule. And Ms. Thompson circumvented that rule. She didn't have
14 those credentials, but she obtained them by tricking the
15 firewall to send a request on to the Instance Metadata Service,
16 and by causing it, thinking it was answering the firewall, to
17 provide those credentials to her.

18 So Ms. Thompson is not a person who should have had these
19 credentials. She performed this trick, she got the credentials
20 and she circumvented the general requirement.

21 And you can see that. This is the top of the gist that
22 kind of brought this whole thing to light. This is
23 Ms. Thompson's entry into Capital One's environment. And you
24 can see that she is proxying through the Internet service -- the
25 IP address that starts with 35.162, she's going to the Instance

1 Metadata Service, she's asking for the latest security
2 credentials for Capital One. That's circumventing the way this
3 is supposed to work. That is circumventing the general
4 protection on going into the Capital One's AWS environment.

5 And ladies and gentlemen of the jury, stepping back a
6 little bit, that makes sense. You know Ms. Thompson was not
7 authorized by Capital One. Capital One didn't know who
8 Ms. Thompson was before this started. They tell her, "Hey, come
9 on into our environment. Make yourself comfortable. If you see
10 some data, take it. If you want to mine cryptocurrency, go for
11 it. Don't worry, we'll pick up the tab." That did not happen.
12 That would never have happened.

13 What actually happened is, each of these companies had a
14 security system in place. They had credential requirements.
15 They required authentication in order to enter the environments.
16 And you heard about that from each of the witnesses who
17 testified.

18 Remember Chris Chan from Bitglass? He talked about how
19 this was a sensitive environment, and if an employee wanted to
20 go in there, they had to first log in to the company using a
21 VPN, which required a multifactor authentication, and then from
22 there, they had to log in to the environment, and that took an
23 access key and more multifactor authentication.

24 So these were all environments that were protected by
25 systems designed to exclude outsiders, systems that Ms. Thompson

1 circumvented.

2 And each of the witness companies was asked the question,
3 like the question asked of Mr. Pelaggi: "Did Apperian intend
4 for her to have access to its code and all of its data?" And
5 Mr. Pelaggi gave the answer you knew would be the answer: "We
6 did not, because these were sensitive, they were protected
7 environments."

8 Ms. Thompson didn't get into these environments because she
9 was given permission or because she was authorized. She got
10 into these environments because she found a novel vulnerability,
11 one that no one else had realized existed, and she exploited
12 that vulnerability.

13 And you know who really knew that Ms. Thompson wasn't
14 authorized to go in there? Ms. Thompson knew that herself. She
15 had worked for AWS. She listed on her resumé -- it was her last
16 job. One of the proficiencies she lists is IAM, Identity and
17 Access Management. She knew how the IAM system worked, she knew
18 what roles were, she knew they were not intended for the general
19 public; they were intended for companies to give employees,
20 perhaps to give machines performing processes, but to be given
21 narrowly to people who needed those; not generally available.

22 And Ms. Thompson told you this time and again. This is a
23 message she sent, a tweet between -- a direct message on Twitter
24 between her and someone else. She said, "Then I hack into their
25 EC2 instances, assume role their IAM instance profiles, take

1 over their account and corrupt SSM, deploying my back door,
2 mirror their S3 buckets, and convert any snapshots I want to
3 volumes, and mirror the volumes I want via storage gateway."

4 Ms. Thompson isn't saying that she was authorized to go in
5 there, that this was legitimate. She's saying she hacked her
6 way in there. And once she got in there, she says she created
7 back doors, ways to have continued access if her other access
8 failed.

9 For this message she sent to someone else, "Yeah, AWS is
10 great, except when someone steals your IAM instance profile that
11 has full access to the account." She's not saying she is
12 authorized, she's saying she steals.

13 And you don't have to rely just on Ms. Thompson's words.
14 You can look at her actions. This exhibit, remember, shows her
15 computer setup. It shows how she communicated. She had her
16 computer configured so there was a separate virtual computer
17 inside it to communicate with the outside world, to provide
18 additional distance so if somebody traced back, you would get to
19 that computer, you wouldn't figure out what the main computer
20 was. Then she went through iPredator, which is a VPN, which
21 provides anonymity, and then she went through TOR, in many
22 instances, another way to get anonymity. Three layers of
23 anonymity.

24 You've heard a lot from defense during the trial. "Don't
25 people use VPN for legitimate purposes?" "Don't people use TOR

1 for legitimate purposes?" And it's true that some people do,
2 but that's not why Ms. Thompson was doing this. She was doing
3 it because she wanted three layers of anonymity, because she
4 knew what she was doing was wrong, she knew she was committing a
5 crime.

6 And you don't have to take my word for it. Again,
7 Ms. Thompson told you that. Someone else, a friend of hers who
8 goes by the moniker "Neoice," said, "Don't go to jail, please."
9 And what was Ms. Thompson's response, basically, don't worry.
10 "I'm like iPredator to TOR to S3 on all this stuff." Ms.
11 Thompson was doing this because she knew she was committing a
12 crime, and she didn't want to get caught.

13 So all of this evidence, the structure of Amazon, the
14 victims' testimony, Ms. Thompson's testimony, Ms. Thompson's
15 words here, Ms. Thompson's actions, all tell you that
16 Ms. Thompson was not authorized to go into those environments,
17 she was not authorized to access those computers, and she's
18 guilty of the charges in each of Counts 2 and 4 through 7.

19 Let's turn to Count 1. Count 1 charges Ms. Thompson with
20 wire fraud, and this count charges, really, the whole scheme
21 that we've talked about. It's the scheme to make
22 misrepresentations to victims in order to obtain data and
23 property, and it includes all of the victims.

24 And in order to prove that Ms. Thompson committed this
25 crime, the government has to prove four things.

1 First, it has to prove the defendant knowingly devised and
2 intended to devise the scheme or plan to defraud or to obtain
3 money or property; second, that the statements made as part of
4 the scheme were material. That is, basically, important;

5 Third, that the defendant acted with the intent to defraud;
6 and fourth, that on or about March 22nd of 2019, the defendant
7 used or caused to be used an interstate wire to carry out an
8 essential part of the scheme.

9 The same evidence about what Ms. Thompson was doing proves
10 each of these elements. First, was there a scheme or plan? Did
11 Ms. Thompson devise a scheme or plan to defraud? And she did,
12 because she devised a scheme to obtain money and property by
13 trickery. Basically, her scheme was to download valuable data
14 from companies. Sometimes she might come up empty, she might
15 get a company where the information wasn't particularly useful,
16 sometimes she'd hit a home run. So it was a scheme to download
17 that property, and it was a scheme to obtain the value of
18 computer processing for cryptojacking. And it was a scheme that
19 based on trickery and deceit. It starts with tricking the
20 firewall. It starts with getting the firewall to pass the
21 message to the Instance Metadata Service, and for the Instance
22 Metadata Service to not understand that it is an external
23 request, and then pass that information back.

24 And Mike Fisk used an interesting word when he testified.
25 He said that she was impersonating the firewall. That's really

1 what's happening. The Instance Metadata Service thinks it is
2 responding to a firewall, because Ms. Thompson is impersonating
3 the firewall, and so it provides that information.

4 And once she has the credentials, she uses them to gain the
5 data, to gain access to do the cryptojacking. And in doing
6 that, in using those credentials, she is representing that she
7 is a person who should have those credentials, that she is a
8 legitimate user of those credentials. She has to be a
9 legitimate user for that to work, and so she is representing
10 that, and that's the trickery, that's the misrepresentation.

11 Second, that the statements made were material, they were
12 important, and you know they were important. If the first
13 request to the Instance Metadata Service had said, Hi, I'm an
14 external computer, please provide information, that wouldn't
15 have happened -- well, first, the request wouldn't have been
16 made. You can't communicate.

17 But second, the Instance Metadata Service would not have
18 answered that. It would not provide that information to an
19 external source.

20 And second, when Ms. Thompson tried to gain access to the
21 companies' environments, if she was communicating that these
22 credentials are being used by someone who is not a legitimate
23 user, by someone who has stolen these credentials, companies
24 would not provide information to that person. So these are
25 important misrepresentations.

1 Third, the defendant acted with the intent to defraud; that
2 is, did she intend to cheat or deceive these companies? And the
3 evidence shows she did do that. She knew she was getting data
4 that she shouldn't get and that she was getting computer
5 resources that she shouldn't get. There's no question about
6 that. And Ms. Thompson's own statements, again, tell you that
7 this is the case.

8 Here's her first description of the data that she took from
9 Capital One. "Jacked, this is the data that I've stolen."

10 Or here is another one. She said, "Whatever, I'll be
11 employed again soon, and if I had a partner, I could have them
12 take over my cryptojacking enterprise and be a stay at home."
13 Ms. Thompson is acknowledging this is cryptojacking. It's
14 stealing resources to mine cryptocurrency. She's not saying
15 someone can take over my legitimate cryptocurrency miners.
16 She's saying "to take over my cryptojacking."

17 Here is another one. A text, "I, however, hijacked more
18 AWS accounts." Ms. Thompson knows that she's defrauding these
19 victims.

20 Finally, the fourth element is, was there an interstate
21 wire? And the interstate wire here sent on March 22nd is the
22 command Ms. Thompson sent to AWS servers to download information
23 from Capital One. That's the wire that's sent from Seattle to
24 either Oregon or Virginia that begins the download of 100
25 million people's records. So all of the elements are satisfied

1 for this crime, and you should also convict Ms. Thompson of
2 Count 1.

3 Count 8 charges Ms. Thompson with damaging a computer,
4 unauthorized access to do that, and there are a number of
5 elements -- and I'm going to come back to these in a moment and
6 talk about how that evidence proves those elements.

7 But the first thing to be clear is, Ms. Thompson was
8 engaged in cryptojacking.

9 Mr. Ho talked about evidence on her computer, he talked
10 about commands used, scripts that could be used to hack those
11 other computers, to create key pairs, to create security groups,
12 to get access to those, to open port 22 to get access;
13 basically, ways to gain access -- further access to computers
14 she already hacked into and to plant cryptocurrency mining
15 software on those. And he showed you scripts that would
16 actually then plant that cryptocurrency software. And you've
17 seen plans, also, where Ms. Thompson is creating new instances
18 to use for that cryptomining.

19 For instance, this is a script in which she is giving --
20 she's, basically, assuming a role -- it's the
21 CI/CD-Instance-Role in the top right, and it is a role that
22 belongs to Survox, and she is assuming that role and getting its
23 credentials, and then she's issuing commands to run instances,
24 one after another. Those are commands to start a new virtual
25 server, a new virtual instance for cryptomining, and she's just

1 starting a whole list of them.

2 And exactly what happens is what you'd expect happens after
3 she does that. Survox gets a bill the next month. They usually
4 get bills less than \$10,000, and suddenly they're being billed
5 \$53,000, because there are all kinds of new instances running on
6 their account that match the kind of instances Ms. Thompson has
7 ordered, instances she's using for cryptojacking, using their
8 resources.

9 You also heard testimony from Vincent Kenney, the computer
10 scientist from the FBI, and he linked all this activity. He
11 looked at the transactions that went into a wallet, wallet on
12 Ms. Thompson's computer, and the deposits of the cryptocurrency
13 into them. And if you remember, those started on March 10th of
14 2019, right as Ms. Thompson is doing her hacking, and it
15 continued until August 5th, about a week after she was arrested.

16 And if you're wondering why they continued after she was
17 arrested, it is because these machines keep running until
18 someone finds them and shuts them down. So she was arrested on
19 July 29th, and some of her cryptojacking activity continues to
20 running for six days, running like zombies until they're
21 stopped.

22 Those weren't the only transactions in 2019 during the
23 period of Ms. Thompson's hacking. Witnesses were asked, well,
24 couldn't someone else be putting money into that wallet? And if
25 they were, why would it be during only this period? That makes

1 no sense. The reason they're happening during this period is
2 because that's when Ms. Thompson has hacked into AWS, when she
3 had access to computers to cryptojack. She's not going to do it
4 before that, using her own electric bill and mine cryptocurrency
5 at a loss. She's only doing it when she can do it free, from
6 victims.

7 And just as with the other crimes, Ms. Thompson's own words
8 tell you this is what she's doing. A friend asked her how she
9 was supporting herself, and this is her response in a direct
10 message conversation: "Just living with a friend and hacking
11 EC2 instances and getting access to some AWS accounts and using
12 them to mine crypto."

13 Or this IRC chat: "Like I've straight up gone to my
14 counselor, told her I was hacking stuff and stealing CPU time to
15 mine crypto, and buying new things for myself and wearing new
16 designer clothes."

17 Or this text: "I have about \$5,000 a month coming in now,
18 but it's all in Ethereum, and I have to find a safe way to
19 convert, because I'm hacking AWS accounts to get it, using EC2
20 GPUs miners."

21 So turning back to the elements, how does this prove that
22 Ms. Thompson has committed the crime with which she is charged?
23 Well, the government has to show these four things:

24 First, that the defendant knowingly transmitted a program
25 or command to a computer, and Ms. Thompson did that. She

1 planted those mining scripts on each of the computers that
2 performed cryptojacking for her.

3 Second, that as a result of the transmission, she
4 intentionally impaired, without authorization, the integrity or
5 availability of data, a program, a system, or information. And
6 Ms. Thompson's conduct did that, creating rogue instances on
7 computers, doing what she wants, as opposed to what the
8 operators of those computers want. That is damaging the
9 integrity of those systems.

10 It's also threatening the availability of those systems.
11 Remember witnesses told you that if a lot of computer processing
12 time is being used for cryptojacking, it may not be available
13 for other things.

14 And you just saw a text about a client who had only 20
15 instances available left. If Ms. Thompson uses all those for
16 cryptojacking, that computer isn't available to do work for the
17 client to do their business.

18 And on a more granular level, and you saw the code
19 Ms. Thompson planted, she used to do this. That code deleted
20 logs that showed what was happening.

21 And these are the bottom four lines of that code.
22 Basically, the commands to delete bash logs, commands to delete
23 other logs, ultimately, at the bottom, the command "RM star,"
24 "remove everything."

25 So Ms. Thompson is destroying the logs that would show what

1 she's doing. And by doing that, she's certainly harming the
2 integrity of the system.

3 The third thing the government has to show is the computer
4 was used in interstate commerce. Again, computers are connected
5 to the Internet, so that's not really an issue.

6 And fourth, the event caused loss to one or more persons
7 during a one-year period of at least \$5,000. And remember,
8 Survox was billed nearly \$60,000 here. Ultimately, it
9 complained to AWS, and that money was credited back, but AWS was
10 still out \$14,000 of its own costs when it refunded that. So
11 take out the profit of AWS's cost of running that computer, the
12 loss it suffered was at least \$14,000.

13 And that wasn't the only victim here. You heard evidence
14 about other companies on which Ms. Thompson planted
15 cryptomining, HP, PowerSquare, AT Works. And Mr. Chamberlin
16 from AWS testified that after those were refunded, AWS lost
17 approximately \$10,000 more on those ones.

18 So there's no question that the loss from what Ms. Thompson
19 did was at least \$5,000, and this evidence shows the government
20 has proved all of these elements, and Ms. Thompson is guilty of
21 Count 8.

22 Count 9 charges Ms. Thompson with access device fraud; that
23 is, attempting to possess unauthorized access devices or credit
24 cards. And the government has to show four things on this
25 count.

1 First, that Ms. Thompson knowingly possessed or attempted
2 to possess at least 15 unauthorized access devices; second, she
3 knew they were unauthorized; third, she acted with the intent to
4 defraud; and fourth, her conduct affected interstate commerce.

5 And this count is based on Ms. Thompson's conduct after she
6 downloads the Capital One information, what she does with it,
7 her manipulation of that data, and the other steps she took to
8 commit credit card fraud herself or to disseminate to others who
9 would.

10 And if you look back in the evidence, what you'll see is
11 Ms. Thompson was engaged in this course of conduct from shortly
12 after the download, until very shortly before she was arrested.
13 The only thing that stopped her was the government's quick
14 action, Special Agent Martini's work in arresting her.

15 So let's look at that evidence.

16 Ms. Thompson downloaded the Capital One data on March 22nd
17 and 23rd of 2019. Within a week, she had scanned that data or a
18 portion of that data, and she extracted data relating to Seattle
19 residents, and she put it together in a spreadsheet, what's been
20 called the "Capital One inclusion list." And you have -- this
21 is one page of it. It is a list of records for Seattle
22 residents that includes name, address, email address, partial
23 Social Security number.

24 And Ms. Thompson used this information. One of the people
25 on this list is Joseph Baleda. Do you remember him? He's the

1 gentleman from Michigan, came in looking slightly bemused, and
2 the man who liked pizza.

3 She pulled his record from here. She created a separate
4 file with just his information. And we know she used it to
5 create a Mailinator account, that's a disposable email account.
6 You can't get records for that, so we don't know what was done
7 with that. But the autofill on her phone had the address on
8 that email account, so we know it was used for that.

9 And we know it was used for other purposes, because the
10 autofill has Mr. Baleda's full name, address, and date of birth.
11 So Mr. Baleda's information was put to some purpose. We don't
12 know what, but Ms. Thompson is using this information.

13 She's also looking at using it for credit card fraud
14 purposes. By early May, Ms. Thompson was doing searches on the
15 Internet about credit card fraud. And remember those -- this is
16 a page -- when she's looking for information about credit card
17 numbers algorithm, how are the numbers on a credit card made so
18 that they work, they're valid? She's looking for carding
19 forums, that is locations where people trade information about
20 credit card fraud, where they sell tools for credit card fraud,
21 and they sell people's personal information for credit card
22 fraud, and she's looking for carding forums on the dark web, in
23 particular.

24 A month later, Ms. Thompson gets more practical. She is
25 looking for servers in Russia. Remember Special Agent Henderson

1 from the Secret Service? He told you there is no need for a
2 server in Russia, unless you're trying to evade law enforcement.
3 And that's where a lot of people involved in carding keep their
4 information.

5 And Ms. Thompson told you exactly why she was doing this.
6 She told you what she was thinking by her search for server
7 rental in Moscow.

8 And the next day, June 5th, she said, "My friend said
9 something to me a while back that's got me thinking about
10 carding a lot lately," and she refers to the algorithm, and she
11 refers to her friend has a mag track writer and emboss kits, and
12 said she needs those to go shopping. So you know what's in her
13 mind as she's looking at this.

14 In early July, Ms. Thompson's web history shows she visited
15 Databricks' website. Databricks is an analytic program that is
16 used for analyzing massive amounts of information. Special
17 Agent Henderson told you that it would be useful if you were
18 trying to decipher the Capital One information, if you were
19 trying to analyze that and trying to clean it up. It would not
20 be useful unless you had a massive volume of data to work with.

21 In addition to looking at the Databricks website, she's
22 also looking up a Datacard 150 embosser, a device you can use to
23 make credit cards. It will encode them, it will raise the
24 digits on them, it will make fraudulent credit cards.

25 And a couple of weeks later, in mid July, she's moving the

1 inclusion list, the spreadsheet that's gathered all the
2 information on the Seattle residents, she moves it to a new
3 location on her computer, and her web searches shows she is
4 still looking for places to upload her data.

5 Now, Ms. Thompson didn't complete this plan. The reason
6 she didn't complete it is, right as this is happening, Kat
7 Valentine is reaching out to Capital One and alerting them to
8 the leak, and Capital One quickly got in touch with law
9 enforcement, and on July 27th, Special Agent Martini was
10 assigned to the case. And it was a sensitive case. It was one
11 he wanted to move quickly on, and that's because Paige Thompson
12 had just posted about the Capital One information, and she said,
13 "I want to distribute those buckets, I think, first."

14 And so Special Agent Martini was concerned that 100 million
15 people's records were about to be distributed, and he moved as
16 quickly as he could, and within a week he got a search warrant;
17 the results of the search, you heard about the seizure of
18 Ms. Thompson's computer and the information and Ms. Thompson's
19 arrest.

20 So that plan didn't come to fruition, and the reason it
21 didn't is because of the quick action of law enforcement.

22 And so if we look at the elements, the first element is the
23 government has to prove that the defendant knowingly attempted
24 to possess unauthorized access devices, 15 unauthorized access
25 devices, and the evidence here shows she was working on it.

1 That was the goal, to either make her own devices, or to sell
2 the information and assist other people in making devices.

3 Second, that she knew the devices were unauthorized. The
4 instructions tell you that a device intended for fraud is
5 unauthorized, and credit cards in someone else's name, there's
6 no legitimate reason. That's intended for fraud, so that
7 element is satisfied.

8 Third, the defendant acted with the intent to defraud.
9 Same thing, there's no reason to make credit cards in other
10 people's names, unless you're going to commit fraud.

11 And fourth, that the conduct affected commerce between one
12 state or another state or between states in the United States
13 and a foreign country. And Ms. Thompson's actions here,
14 undoubtedly, did that. You heard from Mike Fisk and Diane Lye
15 about the impact of the theft of that information on Capital
16 One, how many people were suddenly working to figure out what
17 had happened, to solve the cyber security program, to
18 de-duplicate large numbers of records, and figure out who needed
19 to be notified, what information had been lost.

20 So her actions, undoubtedly, affected interstate commerce,
21 and that evidence shows that Ms. Thompson is guilty of Count 9.

22 Count 10, this is the last count, charged Ms. Thompson with
23 aggravated identity theft, and the government has to show three
24 things on this count.

25 First, that Ms. Thompson possessed, without legal

1 authority, someone else's means of identification. Here, she
2 downloaded 100 million people's information. It included their
3 names, it included other data, so there is no question about
4 that.

5 Second, that she knew the means of identification belonged
6 to a real person. Clearly, the case is she stole this
7 information, and it was real people's records at Capital One.

8 And third, that she did so during and in relation to the
9 access device fraud. And that, it's the same evidence that I've
10 just gone through, and so Ms. Thompson is also guilty of Count
11 10.

12 So that brings us to the third thing I wanted to talk
13 about, which is arguments the defense has made during the course
14 of this trial.

15 The central defense seems to be that Ms. Thompson only
16 accessed what the defense has called "publicly available" or
17 "publicly accessible information." And the only thing to
18 support that argument that you've heard was Professor
19 Halderman's testimony.

20 Professor Halderman, as you remember, said, "Well, the
21 computers functioned as they were configured, and they did what
22 they were programmed to do," and I guess, presumably, the
23 information is publicly available.

24 There's a lot of problems with that argument. The first
25 one is the Court's instruction on what it means to act without

1 authority. And this -- remember, this instruction says you act
2 without authorization when a computer is protected -- I'm going
3 to abbreviate because I read it earlier -- but when a computer
4 is protected by something such as a password requirement or a
5 credential requirement, and two, the person circumvents that.

6 Professor Halderman's argument doesn't talk about that. It
7 doesn't pay attention to the fact that the AWS environment is
8 protected by credential requirements, and Ms. Thompson is
9 circumventing those. His argument just looking at a computer
10 and saying, "Well, it functioned as it was programmed," doesn't
11 fit with this framework.

12 It also ignores everything else that you know if important.
13 Step back from being a professor and think about the real world.
14 Whether you're authorized or not, it matters if the company
15 said, Hey, go into our environment or not. So it ignores what
16 the company expressly granted authorization for and what it
17 didn't. It ignores the length that the company went to to set
18 up their security environment, and it ignores what Ms. Thompson
19 knows and doesn't know. She knows she's not authorized to be in
20 those computers. And so the fact that she found a bug, the fact
21 that she found a vulnerability, the fact she exploited it and
22 made the computer do something, that it did what it was
23 programmed to, that doesn't mean that she's authorized to be in
24 there, and everyone knows that, including Ms. Thompson.

25 And third, the other problem with Professor Halderman's

1 argument is it goes way too far. He seemed to suggest that a
2 configuration error, that was somehow special, but it's not.
3 It's just the same as a coding error. A coding error is an
4 error in code written by a programmer. The programmer made a
5 decision at each line to write that code. He might have made
6 the wrong decision or a bad decision that leaves a
7 vulnerability, but coding, configuration, they're all part of
8 setting up the computer and setting up the system.

9 And by Professor Halderman's logic, if the computer acts as
10 it is configured, acts as it is programmed, that's fine, and
11 that can't be the case, because everyone who ever hacked into a
12 computer, the computer did what it was programmed to do, that's
13 why it let them in. And so if Professor Halderman's argument is
14 right, there would be no such thing as computer hacking.

15 You were picked for this jury based on your common sense,
16 and you should use that to look at these facts, this
17 environment, and see what happened, and understand what
18 happened. Follow this instruction given to you by the judge,
19 and the evidence shows Ms. Thompson was not authorized. She was
20 entering these computers without authorization.

21 I want to talk about Professor Halderman's testimony a
22 little more.

23 The instructions say that you are the judges of
24 credibility. It's your job to assess witnesses, to decide how
25 much weight to give them. They also tell you that expert

1 witnesses are like everyone else. They have expertise, but it
2 is your job to assess and evaluate the information and to use
3 the tools that the Court has instructed you to use. And when
4 you use those tools, think back to Professor Halderman's
5 testimony yesterday.

6 Professor Halderman is the only witness in this case whose
7 manner changed so directly between direct examination and
8 cross-examination. He was happy to answer the questions on
9 direct examination, but it was kind of hard for Ms. Manca to get
10 answers to her questions on cross-examination.

11 Professor Halderman has taken positions before. He's
12 written things. He was slow to agree that he had written those
13 things, and he slowly acknowledged some of those positions. And
14 when he did acknowledge it, he qualified them in ways that said,
15 Oh, well, that's just the norm. That's not really -- it could
16 be something else could be the case. He kept qualifying and
17 changing those positions in ways that help Ms. Thompson's case.

18 And his memory, he had no trouble remembering a decision
19 where a judge found that he was a credible witness, but he
20 seemed to have a really hard time remembering details about
21 another opinion, where a judge found that he was not a credible
22 witness, that he was more of an advocate than an expert.

23 And when you look at the evidence in this case, and when
24 you look at Professor Halderman's testimony, I want you to
25 consider whether his testimony was more of that of an advocate

1 than an expert.

2 I want to talk for a moment also about a note, the note
3 that was handed to someone who handed it to Eric Brandwine at a
4 conference in May of 2019.

5 Now, the evidence in this case has established, basically,
6 that we don't know who that person was. Mr. Brandwine doesn't
7 remember who handed him the note. And so the defense is
8 suggesting this is a disclosure by Ms. Thompson, this is her
9 revealing this in order to help Capital One fix this, in order
10 to fix this vulnerability.

11 And what I want to say to you is that the evidence in this
12 case is clear about one thing. Ms. Thompson is not the person
13 responsible for that note. And how do you know that? Well,
14 first off, the note describes "own SOCKS proxy." And
15 Ms. Thompson, obviously, is a very technologically savvy person.
16 She came up with this exploit that no one else had thought of.
17 She figured out how to do it. And if she were writing that note
18 or if she were writing that note and handing it to somebody
19 else, it would have described what happened. It wouldn't have
20 described a different thing, something so different that when
21 Capital One looked at it, they couldn't find the vulnerability,
22 they went in the wrong direction. They couldn't put this
23 together. So if Ms. Thompson were responsible for that note, it
24 would have read differently.

25 But second -- and this is, actually, a really important

1 point -- when you look at that note, it's easy to think of it
2 as, Oh, is this a disclosure to Capital One, and that's because
3 this case is somewhat through the lens of Capital One. They're
4 the ones who figured out they'd been breached and brought it to
5 law enforcement.

6 But Capital One is really just a small part of this case.
7 Ms. Thompson had dozens of victims. And you've seen some of
8 those victims. You saw the victim Apperian, his company's
9 entire source code and database was stolen. You've seen John
10 Roundy, whose company lost valuable information and was subject
11 to cryptojacking. You've seen the list of other victims.

12 If Ms. Thompson were making a disclosure, she wouldn't make
13 the disclosure to Capital One. There's nothing special about
14 Capital One. She would have disclosed to AWS, or she would have
15 disclosed to all 30 victims.

16 So in hindsight when you look at this, it's easy to read it
17 the wrong way. But what that tells you is this disclosure is
18 not by Ms. Thompson. It might be by someone who heard her brag
19 about Capital One, but it is not something that Ms. Thompson
20 intended.

21 The defense has tried to suggest that Ms. Thompson is a
22 white hat hacker, that she is an ethical security researcher.

23 Remember John Strand testified yesterday, he is the fellow
24 from the Black Hills, which I think is North Dakota. He told
25 you what it means to be a white hat hacker or an ethical hacker,

1 and he told you the norms have changed over time, but there are
2 some fundamental things. White hat hacker is trying to make the
3 situation better, they're trying to find vulnerabilities and fix
4 them, and they never do certain things. They don't take
5 victims' data. They don't cause damage to victims. They don't
6 leak data that is not theirs. They don't engage in
7 cryptocurrency. They don't steal companies' resources that
8 they've hacked into for their own financial benefit.

9 And even if the norms are changing over time, those are
10 things that don't change. Those are fundamental principles.

11 And

12 Ms. Thompson's conduct violates every one of those principles.
13 It places her squarely in the malicious hacker camp.

14 Ms. Thompson took data from companies that didn't know she
15 was doing it. She took immense volume of data and information
16 from those companies and she threatened to distribute them.
17 Those are things that white hat hackers do not do.

18 Ms. Thompson took actions that risked other damages to the
19 companies. She created key pairs. She created security groups.
20 Mr. Strand told you that is incredibly dangerous. That can
21 cause people's systems to fail. He would never do that unless
22 he had a contract and the company said, Yes, do this as part of
23 testing to make sure stuff is okay.

24 Ms. Thompson did it without worrying. And Ms. Thompson
25 cryptojacked. She stole resources to make money for herself,

1 and that's as far as you can get from being a white hat hacker.

2 Fundamentally, Ms. Thompson's motivation was not to be a
3 white hat hacker. It was not to help the companies into which
4 she hacked. Nothing in the evidence suggests it was. You
5 haven't seen anything that suggests that benign motive. What
6 you've seen as evidence is that she wanted data, she wanted
7 money, she wanted to brag.

8 And, in fact, Ms. Thompson didn't just hack herself. She
9 talked about it with some of her friends. And this is a message
10 that she sent to a friend. She had described -- if you go to a
11 little earlier in the chat, she described how to download data,
12 how to scrape S3 buckets and get data from victims, and after
13 doing that, she tells this person, "But, yeah, if you just want
14 to use it to learn how to do some stuff with AWS, go for it.
15 It's not my stuff. LOL."

16 She's not trying to make things better. She's trying to
17 make things worse. She's trying to teach other people how to do
18 what she did.

19 Ladies and gentlemen, all of the evidence in this case
20 shows that Ms. Thompson used her background, she used her
21 knowledge, she used her technological savvy in order to exploit
22 a vulnerability that she figured out. It was a complicated
23 vulnerability. No one else had figured it out. AWS hadn't seen
24 it, so they hadn't figured it out. No one was aware of it.

25 But Ms. Thompson figured it out, and when she figured it

1 out, she didn't report it to AWS. She didn't report it
2 anonymously, if she was scared to. She took advantage of it to
3 make money to support herself. She took advantage of it to take
4 data and dig into that data and start figuring it out and start
5 to plan to use that data for fraud. She took advantage of it to
6 brag to friends about what she had done, and, I'd suggest, to
7 show that she was smarter than them.

8 When this trial started, Mr. Klein told you you may not get
9 Paige Thompson. But you've heard all the evidence now, and you
10 get Paige Thompson.

11 We'd ask you to convict her on all of the counts on which
12 she's charged.

13 Thank you.

14 THE COURT: Thank you, Mr. Friedman. We'll take our
15 morning break now and do closing for the defense when we come
16 back. So leave your instructions and your pens on your chairs,
17 and please clear a path for the jury by staying in your seats,
18 otherwise.

19 THE FOLLOWING PROCEEDINGS WERE HELD
20 OUTSIDE THE PRESENCE OF THE JURY:

21 THE COURT: Mr. Hamoudi, you'll be about an hour?

22 MR. HAMOUDI: No, Your Honor. I'll be about 40
23 minutes.

24 THE COURT: And then Ms. Manca.

25 MS. MANCA: Yes.

1 THE COURT: Okay. We'll be in recess.

2 (Court in recess 10:46 a.m. to 11:05 a.m.)

3 THE COURT: Ladies and gentlemen of the jury, would
4 you now give your attention to Mr. Hamoudi, who will give the
5 closing argument on behalf of Paige Thompson.

6 DEFENDANT'S CLOSING ARGUMENT

7 MR. HAMOUDI: May it please the Court, counsel,
8 Ms. Thompson.

9 As we said in opening, Ms. Thompson lawfully obtained all
10 of this data. The key issue is whether she was authorized to
11 access these computers, authorized to use computer resources,
12 and if she was authorized, if the government cannot prove her
13 actions are without authorization, there is no legal basis to
14 accuse her of any of these offenses.

15 These were publicly known commands that the computers
16 responded to according to predetermined rules. And because she
17 came into lawful possession of all of this data through lawful
18 means, there is no legal basis to accuse her of fraud,
19 unauthorized access, access device fraud, or aggravated identity
20 theft.

21 We believe the record is strong on all of these points, but
22 any doubt on these issues must be resolved in Ms. Thompson's
23 favor, because the government has to prove all of these elements
24 beyond a reasonable doubt.

25 To understand what happened in this case, it helps to

1 understand a bit about Ms. Thompson.

2 As you heard from her friend, Mr. Carstens, Ms. Thompson
3 has been interested in and talented with computers all her life.
4 Due to an unstable family life and other challenges, she never
5 completed her education, but she is intelligent and talented,
6 especially in the area of computers. She's had jobs in tech
7 fields, but her work is intermittent and not stable.

8 As true of many who love computers, Ms. Thompson spends a
9 great deal of time in a virtual world. She often is up late at
10 night, typing code and talking to people who share this world
11 with her, constantly exploring what is possible in this online
12 world.

13 Computers provided her with access to a community, but
14 there also have been times when she's felt isolated and alone.
15 In those times, as you heard her longtime friend, Tim, state,
16 she's known to say troubling things that she doesn't truly mean
17 in order to get attention, to get a response.

18 The government has admitted an overwhelming amount of
19 computer evidence and social media evidence to try to make what
20 happened here seem alarming and frightening. But as
21 Mr. Halderman testified, what Ms. Thompson did was quite simple.
22 Any member of the public, with these rudimentary skills, could
23 have done the same.

24 My presentation today will cover what technically happened,
25 how Ms. Thompson behaved after she freaked out, learning what

1 she found, what the companies and the government did in response
2 when they learned, and how we find ourselves here today.

3 When I refer to the jury instructions, please, if you can,
4 note them for your deliberations.

5 What technically happened demonstrates that Ms. Thompson's
6 access was authorized, and demonstrates that there was no fraud.
7 By both technical and legal definitions, the computers
8 Ms. Thompson accessed were open to the public, meaning her
9 access was authorized.

10 You heard testimony from Ms. Lye, who reviewed the
11 memorandum to the chief information officer at Capital One, Rob
12 Alexander, and in that memorandum, she stated she was aware that
13 the web application firewall had been granted overly permissive
14 access, and Ms. Thompson was able to "access our AWS storage
15 from outside the Capital One network."

16 And Mr. Fisk, from Capital One, after cross-examination,
17 effectively conceded the same thing. Here, if you look at what
18 they themselves have conceded, they admit that Ms. Thompson's
19 access to these computers were authorized.

20 Now, the government points out to you, during their
21 closing, that really it's the company's intent that matters.
22 Mr. Fisk's intent, Mr. Chan's intent, Apperian's intent,
23 Mr. Pelaggi, or any member of these companies, it's their intent
24 that matters.

25 But that's not what the law says. The law says "the

1 computer." It doesn't focus on an individual representative's
2 intent within the company or the policies set within that
3 company.

4 Why is the law written this way? Why is the law focused on
5 the computer and not on the person? Because people could be
6 sued or charged with a crime simply because of the computer's
7 configuration.

8 You heard testimony from Professor Halderman that these are
9 real risks. You've heard testimony from their own witness,
10 Mr. Strand, that these are real risks, and for that reason, the
11 law focuses on the computer. It does not focus on a person's
12 subjective intent.

13 The testimony offered by Ms. Lye about the company's
14 understanding of this configuration that was corroborated by
15 Mr. Fisk was really expanded upon by Professor Halderman in his
16 demonstrative.

17 He laid out what really happened here. He said that
18 Ms. Thompson wrote a simple command, a scanning command, which
19 reached out to the proxy and said please ask the Instance
20 Metadata Service for available credentials. The EC2 instance
21 ran open forward proxies. This was a decision, by someone
22 inside Capital One, to configure the computer this way. That
23 rule allowed anyone to use, to make requests to other servers,
24 including the Instance Metadata Service, and the response was
25 "okay."

1 The next event was that the Instance Metadata Service,
2 please, send me available credentials, and per its rules, it
3 provided role credentials in response to requests from the EC2
4 instances. "Okay."

5 And the next request, here's a credential, please send me
6 data, launch, and instance. Capital One configured -- all of
7 these companies configured their computers to allow some or all
8 of these events, allow anyone -- Capital One -- possessing role
9 credentials to read data, launch EC2 instances, or perform other
10 actions for which the role has been granted permission. That's
11 exactly what happened here.

12 And it is important to understand that Professor
13 Halderman's technical opinions went unchallenged.

14 Instruction 18 to 23, which deal with Counts 2 through 7,
15 all require the government to prove without authorization beyond
16 a reasonable doubt.

17 Professor Halderman's testimony, Mr. Fisk's testimony
18 establish that Ms. Thompson's access to Capital One's computers
19 were authorized.

20 Witness after witness testified that this system was overly
21 permissive. Overly permissive does not mean without
22 authorization. It is exactly the opposite; too much
23 authorization.

24 Professor Halderman's conclusions, again, the technical
25 opinions went unchallenged. Here, all of the companies

1 configured their firewalls, the web application firewall
2 granting overly permissive access to Ms. Thompson, who was able
3 to access the systems for all of these companies from outside
4 their network. Ms. Thompson had no say over the decisions of
5 these configurations.

6 Now, the companies all had different types of data stored
7 in these S3 buckets.

8 Capital One had 1.7 terabytes of data, some of which was
9 sensitive.

10 Apperian, 700,000 file paths, and inside of them were
11 databases that are of great value to them.

12 Bitglass, internal log files, which, I believe, Mr. Chan
13 testified were not worth anything.

14 42Lines, instance information.

15 Enghouse, survey results.

16 We called two additional entities. Ohio State said it was
17 public data; Michigan State, public data.

18 The government has made much of the companies' intent here,
19 but, again, their intent is irrelevant. The concept of "without
20 authorization" does not focus on the company's subjective
21 intent, and the proof here, the only proof here that matters is
22 how the computers were configured at the time of access.

23 Instruction 17, which deals with wire fraud, requires the
24 government to prove beyond a reasonable doubt that there was a
25 misrepresentation of a material fact, and that Ms. Thompson had

1 the specific intent to deceive and cheat these companies out of
2 money or property.

3 Professor Halderman's testimony that the system operated
4 exactly as it was designed demonstrates that there was no such
5 misrepresentation, there was no trick. Ms. Thompson used
6 publicly known commands recognized and authorized by AWS
7 computers, because that is how the companies configured them to
8 run the commands. The computers were not tricked. They
9 executed commands as they were configured and programmed to do.

10 The testimony and data demonstrate that Ms. Thompson had no
11 idea what sort of data she did find as she was downloading it.
12 There was no specific intent to deceive and cheat any particular
13 company. And, indeed, there is evidence that once she
14 discovered what she had accessed in Capital One's S3 buckets,
15 she attempted, in some form or fashion, to notify Capital One
16 about the vulnerability.

17 Let's be clear: In the approximate five months
18 Ms. Thompson possessed Capital One's data, she never shared it,
19 she never made credit cards, she never opened bank accounts, she
20 never took any efforts to sell it. The same is true as to all
21 of the companies here.

22 There 's strong evidence of her lack of intent.

23 Mr. Schuster, from AWS, provided favorable testimony to our
24 defense. He spoke about how the business model -- briefly, when
25 the Court inquired -- was about taking things off from physical

1 premises and into a shared space. That is the concept, the
2 shared space. Obviously, government and the defense disagree.
3 But if you carefully listen to his testimony, there are many
4 areas in which the witnesses do agree, as Mr. Schuster
5 testified. Capital One set the rules for its firewall and chose
6 to allow external requests. Capital One enabled their proxy to
7 allow a forward proxy to reach its Instance Metadata Service.
8 Professor Halderman's opinion on this point went unchallenged.

9 The credentials provided to Ms. Thompson allowed access to
10 some S3 buckets but did not allow access to others. Some gates
11 were up, and some gates were down, which signaled that some
12 access was authorized. Again, this was based on the decisions,
13 choices made by Capital One and the other companies that
14 determined whether she could or could not do that, based on her
15 program-based requests.

16 Mr. Schuster, from Capital One, said that Ms. Thompson
17 tricked the firewall. There was no trick. As Professor
18 Halderman testified, by default, there were no permissions for
19 these roles. In other words, it was a conscious, affirmative
20 action to set up these roles. If there was a trick, then
21 someone would have testified that the software was patched
22 afterwards, so it couldn't be tricked. There was no patch,
23 because, as Professor Halderman's experiment showed here in
24 court, the software operates in the same way today.

25 Ms. Thompson's ability to access the data was a direct

1 consequence of Capital One and the other companies' decisions to
2 set up their software and access provisions.

3 In fact, on cross-examination, Mr. Schuster admitted that
4 companies would intentionally configure their proxies in this
5 way.

6 What's novel here is the government's theory about what
7 constitutes hacking. The government is trying to portray a
8 narrative that the Identity Access Management Role credentials
9 are like an ATM, a PIN, a password. They're not. They're
10 automatically assigned by AWS's system to do what the web access
11 firewall is confirmed by the client to do.

12 The government said that this was novel, no one knew, but
13 that's not true. Professor Halderman told you that the settings
14 of the web access firewall to operate as an open forward proxy
15 was in Apache's documentation.

16 Ms. Thompson is here because she read the instruction
17 manual, and Capital One did not.

18 Mr. Fisk, from Capital One, provided favorable testimony to
19 our defense. Mr. Fisk testified that Capital One's firewall
20 allowed a command line, which was reasonably straightforward,
21 for Capital One to reproduce to allow requests from Capital One
22 to go through the firewall and be proxied to the Instance
23 Metadata Service.

24 That testimony means that the computer was not protected by
25 generally applicable rules regarding access permissions. That

1 testimony means that Ms. Thompson did not circumvent the rule
2 regarding access permission to gain access to the Instance
3 Metadata Service. Their computer allowed it. This is exactly
4 what Professor Halderman explained, in great deal, and his
5 explanation went uncontested by the government.

6 Remember that the government did not take issue with that.
7 The government did accuse Professor Halderman of overly
8 simplifying.

9 Professor Halderman's slides were made to explain some of
10 the concepts to which he testified to in accessible ways. He
11 testified to much more detail as he presented these slides,
12 including that the proxy scanning here was quite simple and
13 could have been accomplished by a web browser, manually, albeit
14 at a much slower rate.

15 If you recall, on cross-examination, Mr. Fisk admitted
16 that. He admitted that you could use a web browser to send a
17 request to this web access firewall, just as they had to admit
18 that using TOR, iPredator is okay to use, because he said, "We
19 can't disable it because we may exclude some of our customers."

20 Mr. Fisk, from Capital One, testified that the data was
21 copied from their S3 buckets, on March 22nd, 2019, by iPredator
22 and TOR. Everyone admitted, again, that it's legal to use these
23 services. Mr. Fisk testified -- well, this is an important
24 date.

25 Under Instruction 17, Count 1, wire fraud, this is the

1 wire. This is the wire. It is the wire that serves as the
2 basis for the accusation under that count.

3 There is no evidence that Capital One was cryptomined,
4 none. Mr. Fisk never testified to it. The request on this date
5 granted access to the server. What this means for that count is
6 that there was no misrepresentation of material fact. He
7 admitted, on cross-examination, that Ms. Thompson would have no
8 idea what the content of the data was that she was downloading.
9 That admission is important, because it means she has no intent
10 to deceive and cheat the company of money or property, because
11 she does not know the content of what she is downloading. She
12 did not visit that S3 bucket knowing beforehand that Capital One
13 would have buried, in 1.7 terabytes of data, sensitive
14 information.

15 Ms. Lye, from Capital One, testified that it took hours for
16 her team to go through that puzzle to determine what that data
17 was.

18 Mr. Fisk testified that a cyber security professional from
19 Capital One learned that external request was made to Capital
20 One through iPredator, but did not identify anything wrong with
21 it. The reason this professional did not is because the access
22 looked like normal activity, meaning the system operated as it
23 was set up.

24 This event is important for Instruction No. 18, Count 2,
25 because it demonstrates that between March 12th, 2019, and July

1 17th, 2019, Ms. Thompson's access was authorized.

2 On cross-examination, Mr. Fisk admitted that Ms. Thompson
3 was effectively authorized to access their servers and download
4 their data.

5 Initially he said, on direct examination -- or I believe it
6 was cross -- that she stole credentials, stealing credentials.
7 She's not charged with theft. She's charged with unauthorized
8 access. And that is why, when I put his own testimony that he
9 gave under oath in a prior proceeding and asked him to answer
10 the question asked in that proceeding, he said -- he testified
11 under oath that she was provided credentials and provided access
12 to data. And he admitted, following that, that those
13 credentials would be obtained from a public web browser.

14 That evidence is critically important, because not only
15 does it establish that her access was with authorization, but it
16 also establishes, under Instruction 17, Count 1, that this is no
17 false representation of a material fact.

18 The April notification. Mr. Fisk testified, in April of
19 2019, another Capital One cyber security professional was
20 notified that the system had granted credentials to an external
21 user. The analyst closed out that notification as well.

22 Professor Halderman agreed, with evidence that he viewed,
23 that this was a loud and proud scan to trigger Capital One's
24 alarms.

25 Intended to notify, technically. The reason why this is

1 happening is that Capital One's configurations were overly
2 permissive.

3 Again, under Instruction 18, Count 2, Ms. Thompson's access
4 on this occasion was authorized.

5 Under Instruction 17, Count 1, this was an intent to
6 notify, not an intent to deceive and cheat Capital One out of
7 property or money. This evidence is, again, also important,
8 because not only does it establish that her access is with
9 authorization, but it also establishes that there was no false
10 representation of a material fact.

11 The May notification. In May of 2019, AWS and Capital One
12 received a note that you have seen and heard testimony about.
13 Professor Halderman testified that this note referred to the
14 same vulnerability involved in this case. He opined that
15 Capital One should have been able to identify the vulnerability
16 through this note.

17 Capital One was notified, time and time again, about this
18 configuration issue by AWS's program GuardDuty, by the multiple
19 scans Ms. Thompson conducted, by the note passed to AWS.
20 Capital One failed to handle the issue. How do we know that?
21 We know that because federal regulators found as such when they
22 imposed an \$80 million penalty.

23 As Professor Halderman said, Capital One, potentially, did
24 not want to make this data public, but they did. That choice,
25 however inartful, signaled to Ms. Thompson that the data she

1 accessed and copied was public and authorized.

2 The note does not say "steal credentials." It says it can
3 "hit credentials," which means it can reach credentials through
4 a publicly facing IP address.

5 Mr. Brandwine admitted that they could determine who the
6 account belonged to from that IP address. He admitted that that
7 person who handed him the note stated that he was asked to pass
8 the note to him.

9 And Exhibit 1013, Robert McLean wrote multiple security
10 professionals on August 2nd, 2019, saying that, "We are
11 confident," "We assess this was either Thompson or her associate
12 Neoice." This is the confidence of cyber security professionals
13 expressed in an email. This email, coupled with Mr. Brandwine's
14 testimony, along with the authorized accesses in March and
15 April, demonstrated that Ms. Thompson was disclosing the
16 vulnerability.

17 Ms. Valentine, who does not work for Capital One or Amazon,
18 who saw the gist that the IP address -- when she testified, she
19 said the IP address screamed out at her when she looked at this
20 note.

21 The company's attempt to suggest to you that the note does
22 not place them on notice is simply not credible. You are free
23 to consider -- free to consider -- whether the failure to take
24 this note seriously was one of the reasons regulators imposed
25 the fine on Capital One.

1 Under Instruction 17, Count 1, this note is an intent to
2 notify, not intent to deceive and cheat the bank out of money or
3 property.

4 Under Instruction 25, this note was an intent to notify,
5 not an intent or an attempted intent to possess unauthorized
6 access devices with the intent to defraud.

7 May 26th. Mr. Fisk admitted, on cross-examination, that
8 the attempted access on May 26th, which took place after the
9 note was passed, was an attempt to see if the access still
10 existed.

11 Look at the CloudTrail logs that were admitted showing all
12 the access to Capital One's system. Look at the similarities in
13 the IP addresses. Again, Instruction 18, Count 2, the computer
14 authorized her access. This evidence is, again, also important,
15 because not only does it establish that her access was with
16 authorization, but it also establishes, under Instruction 17,
17 Count 1, that there was no false representation of material fact
18 to gain access to the server.

19 Now that I'm finished talking about what technically
20 happened and have discussed the note, I want to discuss what
21 happened next, and its evidentiary significance.

22 Ms. Thompson's disclosure to Ms. Valentine demonstrates
23 that she lacked any intent to commit fraud, access device fraud,
24 or aggravated identity theft.

25 It was a disclosure, messy and, perhaps, inartful, or

1 ham-fisting about a serious vulnerability that no one was taking
2 seriously.

3 Tim Carstens testified that her words and online statements
4 have made it hard for her to be taken seriously. He testified
5 that her comments are not always appreciated outside the friend
6 online community.

7 By way of background, fear may have also played a part.
8 Ms. Valentine, Mr. Strand, Professor Halderman all agree that
9 disclosure is difficult. Professor Halderman testified that he
10 has been threatened with lawsuits and that associates have been
11 arrested. He said it is daunting. Mr. Strand testified that
12 people can be sued.

13 There is a power dynamic in this world of cyber security,
14 and you've heard evidence of it that explains the difficulty
15 surrounding disclosure.

16 Ms. Thompson is a transgender woman in a community that can
17 be, as Ms. Valentine testified to, a toxic and hateful culture.
18 She does not have a high school degree or a college diploma.
19 She does not have a large company or academic institution behind
20 her. She has little power in a world set up not to believe her.

21 So Ms. Thompson reached out to Ms. Valentine, a woman who
22 identified herself, publicly, as a hacker, who previously worked
23 in credit-card compliance in June 2019. Her disclosure was
24 erratic and provided Ms. Valentine a private link on a gist,
25 which allows people to provide their notes, and, here, she

1 received the proof of consent that showed that Capital One had
2 set up its AWS in a manner that allowed public access to it.
3 Ms. Valentine initially described the message as outlandish,
4 which corroborates exactly the testimony of Mr. Carstens, who
5 said Ms. Thompson was not taken seriously by people. The
6 messages forced her to block Ms. Thompson. Mr. Carstens said
7 she would spam a lot of comments on message boards when she
8 communicated.

9 Even Ms. Valentine, a person who is well respected in the
10 cyber security community, talked about her own fear of
11 disclosure, even though she had law enforcement ties. She had a
12 professional disagreement with a colleague as to whether she
13 should disclose. Ultimately, it was the fact that Ms. Thompson
14 threatened to dox people's identities is what drove her to
15 disclose.

16 It is important to understand that the term "doxing" is a
17 terms of art. Professor Halderman testified that it means going
18 public. Ms. Valentine's interpretation of that term should be
19 considered in light of the fact that she did not know anything
20 about the note and the prior attempts to notify Capital One's
21 systems.

22 Mr. Carstens, who testified as to her reputation, said that
23 she makes statements to grab people 's attention. There is
24 sufficient evidence on this record for you to conclude that
25 Ms. Thompson was going to go public because she was not being

1 taken seriously, because, in her life, she struggled to
2 communicate.

3 This is why Ms. Valentine instinctually, ultimately,
4 interpreted her message as a cry for help. We contend it should
5 not be interpreted to mean that she truly intended to dump
6 Social Security on the Internet. She has had this data since
7 March and did not do that. And she said this to Ms. Valentine;
8 she did not do it and it remained in her possession for another
9 month. She was trying to get attention in an erratic way.

10 The facts that I've just described to you as to
11 Ms. Valentine demonstrate that Ms. Thompson did not have an
12 intent to deceive and cheat under Count 1, Instruction 17; under
13 Count 9, Instruction 25; and no attempt to commit aggravated
14 identity theft under Count 10, Instruction 26, because she told
15 somebody in cyber security about this.

16 So why are we here? Power dynamics. We talked about that
17 in opening.

18 Capital One has a strong interest in projecting an image to
19 the public that they take their data security seriously. That
20 projection impacts the financial viability of these companies,
21 their share prices, and their bottom line. They have a clear
22 interest to limit liability. They have a clear bias in
23 deflecting blame away from themselves to someone else, anyone
24 else.

25 That interest was made clear to you. On direct

1 examination, Mr. Fisk incorrectly suggested to you that the fine
2 imposed by government regulators did not involve this breach,
3 saying it was a broad consent order. In their annual report,
4 they told the public that the \$80 million penalty was tied to
5 this incident, but he suggested to you, under oath, that it was
6 not. And if you look at the consent order and read it together
7 with the 2020 annual report, the evidence shows this:

8 Ms. Thompson's access to these servers led to a stark
9 revelation that the bank had failed to protect their customers'
10 sensitive data since 2015.

11 As you recall, Ms. Lye testified that she was aware that
12 her supervisor, Mr. Rob Alexander, chief information officer,
13 informed the risk committee in a memo, a group of senior
14 executives at Capital One, that this breach occurred because the
15 web access firewall had been granted overly permissive access,
16 and Ms. Thompson was able to access their AWS storages from
17 outside the Capital One network. I asked her that. She said
18 she was aware. This is exactly what Professor Halderman
19 testified to. That evidence and testimony by Ms. Lye
20 demonstrate no intent to defraud, no aggravated identity theft,
21 no access device fraud.

22 In the 2020 annual report, they defined the cyber security
23 incident to shareholders as, quote, the unauthorized access by
24 an outside individual who obtained certain types of information
25 relating to people for our credit card products and to our

1 credit card customers that we announced on July 29, 2019.

2 No mention of what Mr. Alexander wrote to the risk
3 committee. Capital One effectively convicted her in their
4 annual report.

5 But if you look at the law as instructed by Judge Lasnik,
6 instructs you "without authorization," her access was
7 authorized.

8 Again, Ms. Thompson never monetized this data, never
9 disseminated it, never made any use of the data to financially
10 benefit herself or harm Capital One's customers.

11 What Ms. Thompson's sin is -- what Ms. Thompson's sin is,
12 is it appears to be that she spoke about what she did in an
13 ineloquent, facetious, offensive, and arrogant way. That does
14 not make you a criminal. A person's statements, even erratic
15 statements suggesting criminality, do not make you a criminal.

16 Look at Instruction 13. You decide how much weight to give
17 to any particular statement, including the circumstances under
18 which they are made.

19 You heard no evidence from anyone at the other end of
20 Ms. Thompson's statements. Actions speak louder than words, and
21 Ms. Thompson's actions here, or her lack of actions with the
22 data, are the evidence of intent you should rely on.

23 So after Capital One learns that the data is breached, the
24 FBI is contacted by Capital One, and they acted very quickly.
25 But those actions were only informed by Ms. Thompson's tweets.

1 None of the background about the prior notifications were known
2 to the FBI at the time. These are the March-April notification
3 that were ignored by the cyber security professional at Capital
4 One, the May 20 note, and the access subsequent to sending that
5 note to see if the data was still publicly available, the scan
6 triggered the alarm.

7 Capital One never really allowed its corporate executives
8 to meet with the FBI directly. Most or all communications were
9 through lawyers. Capital One had their representative seek
10 information directly from Agent Martini to provide it to the
11 OCC, because they knew they had liability. This is before the
12 fine is imposed. That same person who was seeking that
13 information from the OCC, whether it was a joke or not, offered
14 to buy Agent Martini a drink. But Capital One doesn't tell
15 Agent Martini about the note. Those are the power dynamics. In
16 fact, it is unclear if they ever told Agent Martini that
17 multiple cyber security professionals inside Capital One had
18 confidence that Ms. Thompson or her associate were the source of
19 the note. If that was the case, he would have testified to it.

20 Ladies and gentlemen, this evidence is significant for you
21 to understand that Ms. Thompson is defending herself on multiple
22 fronts. She's just not defending herself against the
23 government, but also against corporations with significant
24 interest in the outcome of this case. All of these companies
25 have a vested interest in projecting an image that they take

1 data security seriously, power dynamics. Why? The law is very
2 uncertain in this area. That's why. It is unclear who is
3 responsible.

4 I want to talk about the front door. Let's talk about the
5 day of the search warrant.

6 It's 6:00 a.m., and the FBI shows up at Ms. Thompson's
7 house with 30 to 40 agents dressed in fatigues and armed with
8 assault rifles and a battering ram. Agent Martini would not
9 directly admit that she is a physically slight woman. You can
10 conclude whether she is or not, based on your observation of her
11 throughout this trial.

12 They disabled the security camera at her house and
13 proceeded to raid her house. There's no evidence of how much
14 sleep she got or how scared she was. Ms. Thompson provided the
15 government with all of her passwords, which she didn't have to,
16 but the government focused on the fact that some of her
17 statements were not entirely truthful. Again, look at
18 Instruction 13. Look at the circumstances, and evaluate the
19 statements in the context in which they were given. Imagine how
20 scared and nervous you would be if that many armed individuals
21 raided your house.

22 We were deprived of the opportunity to present to you the
23 circumstances surrounding the statements she made on that
24 morning, because the video was destroyed for tactical reasons.

25 What did they find after the raid? They found data. They

1 found nothing that she shared the data or monetized it. Over
2 the last three years, they have had access to her social media,
3 phones, emails, public postings, servers, server archives, and
4 on and on and on and on, but no evidence that she misused
5 anyone's data.

6 Remember the government told you there would be evidence of
7 designer clothes? The evidence showed no designer clothes.

8 We also learned that all these companies -- Apperian,
9 Bitglass, Survox, 42Lines -- all had provided overly permissive
10 access to their servers, like Capital One. Professor Halderman
11 explained why, in his demonstration, all of these companies'
12 firewalls were configured the same way. That is significant
13 under Instructions 19 through 22, which represent Counts 4
14 through 7. Ms. Thompson's access to their servers was also
15 authorized.

16 Count 8. Count 8, remember when I talked to you earlier
17 about why, under Count 1, there was no false representation of a
18 material fact to gain access to a server? And remember when I
19 said there was no intent to deceive and cheat the companies of
20 property? All of those arguments apply to Count 8.

21 Here, the government cannot prove, beyond a reasonable
22 doubt, that Ms. Thompson transmitted code to a computer between
23 March 10th to August 5th, 2019, which intentionally impaired,
24 without authorization, the integrity or availability of data.

25 Why? Mr. Schuster never testified that Ms. Thompson did

1 that. He's one of the highest representatives from AWS.

2 The mining script identified by Mr. Ho was never executed
3 or tested by him on a device to see if it actually impaired a
4 computer.

5 Professor Halderman testified that creating a new instance,
6 which is what you have to do to mine cryptocurrency, does not
7 impair a computer, because what you're actually doing is just
8 creating a new computer.

9 No testimony was received from representatives from Capital
10 One, Survox, Apperian, Bitglass, or 42Lines that their computers
11 were impaired.

12 But most importantly, this instruction also requires the
13 government to prove, beyond a reasonable doubt, that this access
14 was unauthorized. If the computers permitted somebody to create
15 new instances, this is an authorized act.

16 And, factually, there was no evidence tying the wallet that
17 was on Ms. Thompson's computer to Ms. Thompson, other than some
18 web searches.

19 Agent Ho found keys on the computer, but no one tied those
20 keys to that wallet.

21 Mr. Chamberlin, who came here from AWS, testified about
22 billing. He never talked to any of the customers. He never
23 bothered to see if they had other accounts that would account
24 for these anomalies. He didn't investigate thoroughly to level
25 an accusation against my client. He just looked at some bills

1 and said he's drawing an inference.

2 Agent Ho received abuse reports from AWS, and he testified
3 that those abuse reports did not specify cryptomining. If the
4 mining was a priority to the government, they would have had
5 Agent Kenney and Mr. Chamberlin involved much earlier. It was
6 not. Because they saw how she was living when they went into
7 her house to arrest her. The manner in which she lived did not
8 reflect the statements that she was making: "\$5,000 a month,"
9 "designer clothes," "BMW," "my stocks." Read those statements.

10 Count 9 and 10, aggravated identity theft and access device
11 fraud. The government introduced evidence that, roughly, 100
12 million people's data was taken. Ms. Lye testified that 117
13 people's data was kept in text files by Capital One, and yet the
14 government had a single person alleged victim, Mr. Baleda, a
15 person who testified that he never suffered any negative
16 consequences, not even a credit hit, from this data leak, and
17 yet Ms. Thompson has been charged with attempted access device
18 fraud and aggravated identity theft.

19 The following acts, as to Mr. Baleda, do not amount to a
20 substantial step as defined under Instruction 24. Looking on
21 the Internet for 20 minutes, having his information on your
22 phone and creating lists all on different dates does not
23 unequivocally demonstrate that access device fraud would be
24 committed. She did not commit aggravated identity theft.

25 Agent Henderson, on cross-examination, admitted that if you

1 took his Internet searches and cobbled them together over a long
2 period of time, selectively, you could make suggestions about
3 him.

4 Before I sit down, I want to say that I won't be able to
5 get back up after the government offers their rebuttal, even
6 though I want to.

7 When the government starts talking about statements, social
8 media postings and such, I want you to imagine someone takes
9 your text messages, emails, social media statements, Twitter,
10 Facebook, whatever, over a long period of time, months, and
11 imagine the government and the FBI get these materials, and
12 they, through their investigatory, accusatory, and suspicious
13 lens, select random messages from each of these platforms,
14 cobble them together, and try to paint a vignette about who you
15 are.

16 It has been an honor representing Ms. Thompson. Her
17 Netcrave Slack channel is called "Never Give Up on Your Dreams."
18 No one should ever give up on their dreams.

19 You heard about Ms. Thompson from Mr. Carstens. At 14, she
20 was known as Zero, she talked about programming, she was very
21 capable, she was part of a smart group where others have
22 advanced, and she was up there in the group in terms of her
23 abilities. Then her handle changed to "Erratic." It was not
24 self-imposed. It was a reflection of how she was viewed by her
25 friends, because she would spam a lot, a lot of comments, very

1 erratic.

2 What led to this may be a mystery to you. When
3 Mr. Carstens talked about not feeling comfortable when he went
4 to pick her up at her house, I wondered what life was like in
5 that home. I truly wonder if that home provided the support
6 that one would need to thrive, like the many computer
7 professionals who testified in this court, having graduated from
8 esteemed universities; this is another reason we ask that you
9 pay attention to power dynamics.

10 When you look at her statements, remember what Mr. Carstens
11 said. What that means, I think, is that you have to know
12 someone before you judge them by their words. All we can do, as
13 outsiders, is judge them by their actions. What she did here is
14 lawful.

15 I do want to finally speak to you about one last aspect,
16 which is the idea of reasonable doubt. This is Instructions 2,
17 3, 4, and 27.

18 When I talk to my students about reasonable doubt, it's a
19 hard thing to talk about. It's a hard thing to teach. It is a
20 hard thing to explain. I request that you approach the task of
21 reasonable doubt with a willingness to speak the hardest words
22 in life to utter, "I do not know." When we say that, "I do not
23 know," we are, at times, apt to feel like it means we have
24 failed or we are not living up to that task. The words "I do
25 not know" might even mean we're confessing, for a moment, that

1 life does not make sense.

2 But when you go into that jury room, be gripped with
3 courage to speak those words if you determine them to be
4 appropriate. That is what a not guilty verdict means. It
5 means, in plain terms, we do not know, not for sure. Not guilty
6 does not mean innocence, not necessarily. It means something a
7 bit different. If you say not guilty, you're saying as a group,
8 "we have thought hard about these charges and this evidence, and
9 we do not know for sure." That may be the wrong answer in
10 different tasks, in occasions of your life, but not in the jury
11 room. Do not feel that you have failed because you come to that
12 conclusion. In fact, it is your solemn obligation to say those
13 words if they are true.

14 You must convict only if you are convinced the government
15 has proven all of these elements beyond a reasonable doubt. But
16 if doubt remains -- and, frankly, it clearly, clearly exists in
17 this case -- if you find reason to doubt, then come back here,
18 stand before us all, and say in substance, "We don't know for
19 sure."

20 In this life we know many things beyond a reasonable doubt;
21 that we love our children and express that love in a way that
22 allows them to thrive and to realize their greatest potential.
23 But that love means we will tell them, through words and
24 actions, to never give up on their dreams.

25 Ms. Thompson did not commit any crimes. For the government

1 to say otherwise, do you know that? Do you know for certain?
2 Do you know for sure? Even if you have doubt between weighing
3 the testimony of Agent Ho, Professor Halderman, Mr. Fisk,
4 Mr. Schuster, that doubt must get resolved in Ms. Thompson's
5 favor. That's reasonable doubt. Return a verdict of not guilty
6 on all of those counts. Bring this nightmare to an end for her.

7 THE COURT: Thank you, Mr. Hamoudi.

8 So because the government has the burden of proof, they get
9 the last word in closing argument. So the only thing between
10 you and lunch and deliberations on the case is Assistant United
11 States Attorney Jessica Manca, who will make the rebuttal
12 argument on behalf of the government.

13 GOVERNMENT'S REBUTTAL ARGUMENT

14 MS. MANCA: That's Judge Lasnik's way of telling me to
15 be brief, right? And I will be brief, because you've been here
16 all morning listening to the evidence.

17 You've heard a lot of technical evidence, and Judge Lasnik
18 described it as sort of learning a different language, and the
19 law can be like that, too, like learning a different language.

20 But something to remember when you go back into the jury
21 room is, we don't use computers to decide the guilt of a person.
22 We don't feed data into programs, and then spit something out to
23 make a decision about whether someone is guilty or not.

24 What we do in our system of law is we ask jurors, like
25 yourselves, to bring your common experience, your lived

1 experience, into the interpretation of law.

2 And what Judge Lasnik told you is that there are terms
3 defined in the jury instructions, and those terms provide the
4 contours, the framework for your analysis, but you will find
5 words in the jury instructions that are not defined for you, and
6 you use what Judge Lasnik referred to as the common meaning of
7 those terms. You are the interpreters of those words, and what
8 you do is you take your lived experiences and your common sense,
9 and bring them to those instructions.

10 And it's helpful, when you're in the jury room, to think
11 about the reason behind the law. Why does this law exist? Why
12 does this term exist? What is it trying to prevent? What is it
13 trying to allow? And that helps frame the discussion.

14 An example of that is authorization. What is the law
15 trying to do? There's tension between security, you know,
16 people who are finding vulnerabilities, and the companies who
17 are trying to keep the vulnerabilities out.

18 And the law says, what should a person do when they find a
19 vulnerability, right? And the law is acting on that moment,
20 that decision-making of "I found a vulnerability, what do I do
21 next?"

22 You can imagine a case where a company would make such a
23 huge technological mistake, that it actually exposes private
24 information to the general public, like accidentally posting
25 Social Security numbers on the Internet. That is not this case.

1 This case involved a complicated series of steps in which
2 Ms. Thompson circumvented the security systems that keep most
3 people out, security systems that involved usernames, passwords,
4 credentials, multifactor authentication.

5 So don't buy into this hypertechnical argument that a
6 machine executing commands by itself is authorization.

7 If someone hacks into a bank account and issues a command
8 to withdraw money, the system will work as it's intended to do.
9 It will withdraw that money, but that won't be authorized.

10 If you even go lower tech for a moment, let's say a person
11 puts their house key under a doormat, right, their spare key,
12 and someone comes along and starts looking under all the
13 doormats on a block, and finds a key and uses it to unlock a
14 back door, when a key fits into the lock and it unlocks the
15 door, the key is doing what it's supposed do, it's unlocking the
16 door in response to the key. That doesn't make the person's
17 entry into the house authorized.

18 The defense is trying to convince you that it doesn't
19 matter that these companies didn't want their data downloaded,
20 that it didn't matter that they tried to protect it, that it
21 didn't matter that they didn't want these credentials to be used
22 this way, and they didn't know that their web facing
23 applications were talking to an internal resource. Guess what?
24 It does matter. It matters a lot.

25 And Dr. Halderman's testimony ignored several critical

1 steps in the hack, which I'm going to talk about in a moment.
2 But there's something much more significant missing from his
3 analysis. It's the human component of these systems.

4 We don't live in a world where machines are just off doing
5 things on their own. Computer systems are built and configured
6 and operated by people, and people make mistakes. It is
7 inevitable, and computer security flaws are inevitable. That's
8 why Eric Brandwine, you know, distinguished engineer, said the
9 goal of security is not to eliminate vulnerabilities; it is to
10 understand and mitigate risk.

11 But the defense is suggesting that if any computer system
12 anywhere has a flaw, it's open season, right? A person can
13 access the systems and do everything they want, as long as the
14 computer keeps responding to commands. That's not the law,
15 right? Your instructions tell you that's not the law.

16 Circumventing security systems is a crime. And what it
17 means to circumvent a system is to use applications and
18 credentials in a way they aren't supposed to be used. That's
19 why it matters that the web application firewall wasn't supposed
20 to be grabbing credentials from the Instance Metadata Service.
21 It's a traffic cop. It's just supposed to be a traffic cop.

22 And that's what it means for these technological components
23 to be overly permissive. The defense kept using the words
24 "overly permissive." It means that it just had more powers than
25 it needed to have. It doesn't mean that Ms. Thompson had

1 permission to use those powers.

2 Circumventing a system is also accessing data in a way it's
3 not supposed to be accessed. Take Bitglass as an example. To
4 access Bitglass's data, Chris Chan testified that employees
5 needed VPN access, which requires account authorization and
6 multifactor authentication, and a jump box with an SSH key and
7 two-factor authentication.

8 Survox is another great example. When an employee wants an
9 IAM Role, that employee sends a request to John Roundy, who
10 evaluates whether the employee needs that role, and then there
11 is a multifactor authentication token. It's simply not true
12 that these IAM Roles are supposed to be generally available to
13 the public.

14 And attaining credentials from the Instance Metadata
15 Services to grab cold storage data from Survox's S3 bucket is
16 circumventing the system that he and his company have set up to
17 control access to their private information.

18 And one of the ways you know that Ms. Thompson used a back
19 door to access this data is that when you look at the data in
20 the jury room, it looks like it was vacuumed out of a back door.
21 Right? It's the back-end data for a database.

22 And, of course, stealing credentials is circumventing
23 security features.

24 There is a second human component here, which is the people
25 trying to break into the systems. What is their motivation and

1 intent? Is it to make the company better or stronger, or is it
2 to take something from them? Is the person hacking for other
3 people, or are they hacking for themselves?

4 It matters that Ms. Thompson knew what she was doing was
5 wrong; that she was, in her own words, stealing credentials,
6 stealing data, and stealing computing power. It matters a lot.
7 And the best evidence of her intent is what she said and what
8 she did at the time of the crime.

9 Because as between the company that doesn't know it has a
10 security flaw, that tried to set up the security systems, but
11 through misconfiguration has an unintended consequence, as
12 between that company that doesn't know it's vulnerable, and
13 Ms. Thompson, who knows the company is vulnerable, who is in the
14 position to stop the breach? She is. She is in the best
15 position to stop the breach, and she chooses not to, and it's
16 that choice that is crossing the line.

17 I want to just say a few things about the note. It's
18 Exhibit 1013, which you'll see -- I'm sorry. 1013 is the email
19 from Capital One. Just look at that, because the note says, "We
20 are confident in this discovery regarding the conference," it's
21 the wrong date, it's the wrong conference, it's the wrong city.
22 They're wrong about literally everything. People can be
23 confident and wrong.

24 The same thing with the loud and proud scan. What does
25 that even mean? There's no evidence of that.

1 And if Ms. Thompson wanted to disclose this information,
2 why is she still searching for servers and embossers and carding
3 forums on the dark web? She is Googling all these things. You
4 know what she's not Googling? "Responsible disclosure Capital
5 One," "how to report security vulnerabilities to companies."

6 Ms. Thompson had no legal obligation to do a responsible
7 disclosure. But the fact that she has that off-ramp available
8 to her and chooses not to take it is evidence of her
9 intentionality and awareness that her actions are unauthorized.

10 So if we could show Exhibit 117. This is the script to
11 scan -- this is the first step. It's scanning IP addresses and
12 grabbing that metadata, looking for that IAM ID.

13 Put up Exhibit 643, page 5.

14 This is a list of vulnerable IP addresses. These are the
15 internal servers that she is able to reach through this proxy.
16 She could have taken this to Amazon for responsible disclosure,
17 but she doesn't. What does she do?

18 There's Exhibit 119.

19 Grabbing the name of the IAM Role, and then what does she
20 do?

21 Exhibit 609.

22 All the IAM names. And she doesn't stop there, either.
23 She doesn't take this list of IAM Roles to Amazon. What does
24 she do?

25 Exhibit 120.

1 She takes these IAM Roles to the company's Amazon command
2 line interface, and authenticates into the company's account.

3 Can we do Exhibit 670, page 2?

4 There's a lot of technical evidence in this case.

5 Can you highlight "hashtag get security credentials"?

6 Thank you.

7 We put an FBI computer scientist on the stand for five
8 hours to explain the evidence on Ms. Thompson's giant computer,
9 and we did that for two reasons: Number one, you need to see
10 the facts, and number two, we bear the burden of proof beyond a
11 reasonable doubt, and we take that burden of proof very
12 seriously.

13 But at the end of the day, this case really is as simple as
14 "hashtag get security credentials." Because wherever the line
15 is that divides authorized access from unauthorized access,
16 "hashtag get security credentials" is on the unauthorized side
17 of that line.

18 So if you saw this script and thought to yourself, "this
19 cannot possibly be legal," you're right, it's not.

20 Can we do Exhibit 120 again?

21 So she uses the role to authenticate into the IAM account,
22 and does she even stop there? No, she does not. She lists
23 budgets. She describes instances. She creates security groups.
24 She creates key pairs. And does she stop there? No, she does
25 not.

1 Can we have Exhibit 204, page 47, and can you highlight
2 that last comment?

3 She lists the buckets, and then she downloads the data.
4 And what you'll notice about this Exhibit 204 is that this is a
5 comment to her gist. So she had the information she needed
6 about listing the buckets, and then takes the additional step of
7 syncing the information, and then she posts it on GitHub to say,
8 look, I downloaded that data.

9 And then there is Exhibit 122, which is cryptojacking. And
10 in order to cryptojack, she has to create a new instance, she
11 has to open port 22 using security groups -- that's that
12 connection to the EC2 instance -- she has to create a key pair
13 to connect through this back door, and she has to create a
14 Secure Shell connection.

15 By the time she gets here to installing the mining program,
16 there are at least eight off-ramps that I just described to you
17 that she chose not to take. And the availability of those
18 off-ramps and her choice not to take them gives you tremendous
19 insight into her intent. She is missing these off-ramps one
20 after the other, because her true destination on this highway is
21 taking data and cryptojacking.

22 It is not at all unclear what the law is or what happened
23 here. You are sure. You know what happened. Ms. Thompson had
24 a large-scale hacking scheme. She hacked into these companies
25 without authorization. She stole credentials. She stole data.

1 She stole computing power. She is guilty of these crimes beyond
2 a reasonable doubt.

3 Thank you.

4 THE COURT: Thanks very much, Ms. Manca.

5 Okay. Picking a jury in COVID times is not easy. Judge
6 Zilly did a jury trial where he lost several jurors to positive
7 COVID tests, so that's why we went with 15, but now I feel like,
8 ugh, I mean, I feel bad for the three alternates who may not get
9 to deliberate. But, you know, the truth of the matter is, we
10 needed it, and we still might need it, because anything can
11 happen as deliberations start.

12 But the three alternates are Ms. XXXXXXXXXXXX, No. 15;
13 Ms. XXXX, No. 9, and Mr. XXXXXXXXXXXXXX, No. 12. So you will not
14 come back at 1:30 and start deliberating. You can go back to
15 the jury room with your fellow jurors and say farewell, pick up
16 any of your things.

17 The rest of you will be the 12 who will decide the case.
18 But if anything were to happen to one, two, or three jurors
19 during deliberations, you could still be substituted in, and the
20 deliberations would begin anew. So all the talk about not doing
21 any research or talking about the case still apply to those
22 three alternates, also.

23 I would ask that you go back to Judge Zilly's courtroom for
24 just a minute or two while Victoria then releases the three
25 alternates, gets contact information, if she needs it, and then

1 we'll send you to lunch. So don't begin your deliberations
2 until after you come back from lunch and are all together in
3 Judge Zilly's courtroom. At that point, Victoria will have the
4 Court's original instructions and will show you to how utilize
5 the computer that's in there to look at evidence and exhibits.

6 You can leave your pens and jury instructions on your
7 chair, including the alternates, because we'll take those, and
8 we will let you know how things develop, for the alternates, to
9 let you know where we are in the deliberations.

10 I've always told you you haven't heard anything or seen
11 anything, well, now you've seen it all and heard it all, but
12 don't start thinking about forming your conclusions about the
13 case until you're all together in the jury room, and that's when
14 the deliberations will begin. Okay?

15 All right. Victoria, do you want to take them over there?

16 And thank you so much to Ms. XXXXXXXX, Mr. XXXXXX, and
17 Ms. XXXX. I hope you still enjoyed the process, even if it ends
18 here. Thank you.

19 THE FOLLOWING PROCEEDINGS WERE HELD
20 OUTSIDE THE PRESENCE OF THE JURY:

21 THE COURT: All right. So when Victoria comes back,
22 give her your phone numbers and reachability.

23 Ms. Thompson is going to stay with you?

24 MR. HAMOUDI: Yes, Your Honor.

25 THE COURT: Great.

1 And I've been doing this for a long time. We won't get a
2 verdict this afternoon. We may get a question, though, so we
3 need you available.

4 There's no way to predict when the jury will return a
5 verdict, but I'm going to do it anyway. It won't be tomorrow
6 morning. It will either be tomorrow afternoon or Tuesday
7 morning. Remember, Monday is a holiday.

8 Ms. Thompson, you received absolutely superb representation
9 from your lawyers. I hope you appreciate the fact that they
10 worked so hard. You can see they put in so much personal care
11 in presenting your case, so I hope you're proud of them.

12 THE DEFENDANT: Absolutely, I do, Your Honor.

13 THE COURT: Okay. Great.

14 Now, having said that, I'm going to say, Mr. Klein, just a
15 tip for the future --

16 MR. KLEIN: Sorry.

17 THE COURT: No, no; no nodding your head during
18 Mr. Hamoudi's closing argument.

19 And then Ms. Meister and Professor Halderman, no whispering
20 during court, especially when the jury is looking right at you.
21 It is rude.

22 Hang in there until Victoria comes back, and we'll get your
23 information.

24 We'll be in recess.

25 (Court in recess 12:15 p.m. to jury release at 4:15 p.m.)

C E R T I F I C A T E

I, Nancy L. Bauer, CCR, RPR, Court Reporter for the United States District Court in the Western District of Washington at Seattle, do hereby certify that I was present in court during the foregoing matter and reported said proceedings stenographically.

I further certify that thereafter, I have caused said stenographic notes to be transcribed under my direction and that the foregoing pages are a true and accurate transcription to the best of my ability.

Dated this 16th day of June 2022.

/S/ Nancy L. Bauer

Nancy L. Bauer, CCR, RPR
Official Court Reporter